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DEPARTMENT OF PLANNING AND LAND USE

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March 29, 2012

CEQA Initial Study - Environmental Checklist Form
(Based on the State CEQA Guidelines, Appendix G Rev. March, 2010)

1. Title; Project Number(s); Environmental Log Number:

   Former Otay Skeet and Trap Shooting Range Remediation Project; 3910-05-19-013 (ER);

2. Lead agency name and address:
   County of San Diego, Department of Health
   5500 Overland Avenue, Suite 110 (PO Box 129261)
   San Diego, CA 92123-1202

3. a. Contact: James Clay, DEH Environmental Health Specialist III (858) 505-6969
   Dennis Campbell, DPLU Project Manager (858) 505-6380
   b E-mail: James.Clay@sdcounty.ca.gov
   Dennis.Campbell@sdcounty.ca.gov..:

4. Project location:
   5350 Heritage Road
   Chula Vista, California 92154
   APNs: 644-060-13, 644-060-14, and 645-030-18

   Thomas Brothers Coordinates (2007): Page 1331, Grid B/6

5. Project Applicant name and address:
   Flat Rock Land Company
   1903 Wright Place, Suite 220
   Carlsbad, California 92008

6. General Plan (as designated by the City of Chula Vista)

Community Plan:	Otay Valley District of the Otay Ranch Subarea
Land Use Designation:	Open Space
Density:	N/A

7. Zoning and Land Use

Zoning Designation:	Planned Community Zone
General Plan Land Use:	Mixed Use Commercial, Open Space – Active Recreation, Open Space - Preserve
Minimum Lot Size:	50 acre(s)
Special Area Regulation:	*City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan*

8. Description of project:

The project is an investigation and remediation of surface and subsurface areas impacted from historic shooting range activities at the former Otay Skeet and Trap Shooting Range. The project consists of remediation of soil impacted by lead and polynuclear aromatic hydrocarbons (PAHs), removal of the "White Material,"[1] as well as the removal of target debris and wood debris from the site. The project site is located within the City of Chula Vista. The site is subject to the *City of Chula Vista General Plan* Land Use Designation Open Space. Zoning for the site is Planned Community (P-C) and the General Plan Land Use designations for the site are Mixed Use Commercial, Open Space – Active Recreation, and Open Space – Preserve. The site contains surface and subsurface impacts from former Otay Skeet and Trap Shooting Range activities. Access is provided by Heritage Road. Earthwork will consist of cut and fill of 76,100 cubic yards of material. The remediation areas (RAs) have been identified in three distinct areas, including RA1, which includes the Shooting Range area, RA2 includes the Target Debris Field and portions of the southern edge of the Otay River floodplain, which is partly defined by a discontinuous berm of soil (Berm), and RA3, which consists of a wood debris pile. The project would include a total of six individual phases. The work activities (phases) are described as follows.

1. Excavation and offsite removal of White Material within RA1.
2. Excavation and stockpiling of contaminated materials in RA1 and excavation of the Area of Contamination (AOC) Engineered Unit.
3. Excavate impacted soil in RA1, cap the AOC Engineered Unit, and backfill clean soil into excavated areas for final grading.
4. Vacuum debris and contaminated material within RA2.
5. Excavate berm cells in RA2 and stockpile in RA1. Construct erosion control feature in RA2.
6. Excavation and offsite removal of wood debris in RA3.

[1] The White Material was discovered during site investigation activities between monitor wells MW-5 and MW-6. The two wells have the highest detections of perchlorate in groundwater and occurs in what is assumed to be fill material emplaced in the early 1970s. There is estimated to be approximately 4,500 cubic yards of soil impacted by the White Material.

The following project design considerations will also be implemented to minimize environmental impacts:

- Dust mitigation measures will be implemented during handling of debris and movement of vehicles on the shooting range. Dust control is not anticipated to be necessary in the MSCP Preserve Area based on the use of the vacuum technology which is not anticipated to generate fugitive dust emissions at the point of vacuuming, except for the excavation of selected portions of the Berm. Dust mitigation measures will be implemented during the excavation of selected portions of the Berm that are within the MSCP Preserve Area. Activities will be in compliance with applicable San Diego Air Pollution Control District (APCD) requirements as defined in Rule 50 (Visible Emissions), Rule 51 (Nuisance), and Rule 55 (Fugitive Dust Control). The following dust control measures will be implemented and may be enhanced based on field monitoring readings and visible emissions, as follows:
    - Dust control will be achieved by applying a light mist of water, as appropriate at one to two area intervals, to unpaved surface areas where equipment will operate, as well as any unpaved access roads, parking areas, or staging areas. The water source will be from a water truck filled from a metered fire hydrant near the site and/or from irrigation well AW-3. Dust suppression application techniques will be performed in such a manner as to minimize surface water run-off;
    - All vehicles within the project site will have a speed limit of 10 miles per hour, and speed limit signs will be posted at various unpaved traffic areas;
    - Tracking control will be implemented on the east side of the parking lot where it connects to the dirt road that will be used to access RA 2. Tracking controls reduce the tracking of sediment and other pollutants by providing a stabilized ingress and egress to the unpaved areas of the site. Manufactured ridged metal plates (rattle plate) will be placed immediately off the asphalt and on the dirt road followed by an additional 50 feet of coarse aggregate that is between 3- and 6-inches in diameter;
    - The asphalt area where removal action vehicle traffic is occurring will be swept daily on days when removal activities occur. The swept material will be placed in the debris stockpile generated from the removal action;
    - Trucks or bins will be loaded at the site with sufficient freeboard to minimize emissions to the atmosphere. In the event dust is observed coming from the trucks or bins, they will either be covered or misted with water;
    - All vehicles and equipment used during site activities will be decontaminated prior to exiting the site by brushing and scraping visible dirt or by rinsing with a high-pressure water spray to remove

dirt. Vehicles will be specifically inspected for the presence of dirt caught in the tires and the undercarriage. Vehicles and equipment will be authorized to leave the site only after decontamination has been accomplished; and

- Smaller stockpiles will be covered with 10 mil plastic sheeting and secured at the end of each work day. Larger stockpiles will be covered with hydraulic mulch, as necessary to control dust. If visible dust emissions are observed coming from the stockpile, it will either be covered or misted with water.
- Grading activities will be limited to 10 acres per day for Phase 1 and 21 acres per day for Phases 2 through 6.

- A dust control plan will be in effect during remediation of the site to prevent and/or minimize release of particulates and fugitive dust. Specific dust control measures will be identified in the Remedial Design and Implementation Plan (RDIP). The RDIP will identify the specific remediation techniques for the project. Once the final remediation plan is developed, specific dust control techniques will be tailored to the remediation activities identified in the RDIP-approved final remedy. In addition, dust control measures will include watering of exposed surfaces to prevent visible dust emissions, watering or temporary covering of excavated soil piles with plastic sheeting, and covering loads with a tarp on trucks leaving the site to dispose of debris while not exceeding a speed limit of 10 miles per hour while driving on-site. It is currently proposed that the water source for dust control will be obtained by a water truck filled from an existing hydrant located approximately 150 feet west of the site along Heritage Road and/or from irrigation well AW-3. All vehicles and equipment used during site activities will be inspected for the presence of dirt and will be authorized to leave the project site only after decontamination is complete. Once remediation activities have terminated, the site will be replanted with vegetation to prevent erosion. This will be consistent with the goals, objectives, and policies of the APCD *Air Quality Plan*.

- All vacuuming activities will be monitored by a qualified field biologist.

To avoid potential indirect impacts to nesting birds, No remediation activities shall occur within the MSCP Preserve (RA2 and RA3; construction phases 4 to 6) during the nesting season for coastal California gnatcatcher (February 15 to August 15) and least Bell's vireo (March 15 to September 15).

- The vacuum trucks will be parked on the former shooting range outside of the biologically sensitive areas, and vacuum hoses will be run from the trucks into the biologically sensitive areas.

- Within RA2, disturbed vegetation/ruderal will be cleared using hand tools including the possible use of powered string trimmers (weed whackers) to

allow access to the underlying soil. No direct impacts to sensitive species will occur and the clearing will be monitored by a qualified field biologist. In order to avoid potential indirect impacts to nesting birds, all excavation activities that may be done in Berm cells HAB-12 through HAB-14 and all vacuuming activities within the rest of RA2 will occur outside of the bird breeding season. Relevant dates are the following:

- Gnatcatcher breeding dates are February 15 to August 15;
- Least Bell's vireo sensitive period is March 15 to September 15; and
- Raptor dates to avoid are January 15 to July 31.

- During remediation activities, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect any downstream special status vegetation from being inundated with sediment laden run-off. Silt fencing shall be appropriately placed to protect the adjacent Otay River and tributaries.

- No invasive non-native plant species shall be introduced into areas immediately adjacent to the MSCP Preserve. All open space slopes immediately adjacent to the MSCP Preserve should be planted with native species that reflect the adjacent native habitat. The plant palette will include the following plants: California poppy (*Eschscholzia californica*), Salt Heliotrope (*Heliotropium currasavicum*) Deerweed (*Lotus scoparius*).

- A community Health and Safety Plan (HASP) and a worker HASP will be drafted and present at the site during working hours. All on-site personnel will be briefed on site safety and will be required to review and sign the applicable HASP on a daily basis. The HASP will contain measures describing the prevention of "upset and accident conditions" with respect to applicable remediation activities. The HASP will contain the following stipulations:
  - Work will be conducted in compliance with U.S. and California Occupational Safety and Health Administration (OSHA) standards and guidelines, and with Section IV, "Community Health and Safety Plan," of the current County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM) Manual.
  - Smaller stockpiles will be covered with 10 millimeter (mil) plastic sheeting and secured at the end of each work day. Larger stockpiles will be covered with hydraulic mulch, as necessary to control dust. Dust control measures will be implemented.
  - Employees and personnel involved with the excavation and loading of impacted soil will be protected by the wearing of disposable, single-use Tyvek cover-all suits and breathing respirators with disposable cartridges. All personnel will be 40-hr Hazardous Waste

Operations and Emergency Response (HAZWOPER)-certified, including applicable 8-hr annual refresher training.
  - Requirements are associated with the transport of hazardous materials across state: for waste classified as a California Waste, the waste will be re-classified outside of California as federally non-hazardous. There will be no change of classification for a Resource Conservation and Recovery Act (RCRA) (federal)-classified waste since RCRA waste must be treated to non-RCRA prior to land disposal.
  - Information provided about a certified hazardous waste hauler that will be used to transport such material: the haulers will be 8-hour HAZWOPER-certified, have a California hazardous waste certificate with their California driver's license, applicable insurance, and carry applicable United States Environmental Protection Agency (U.S. EPA) numbers with the waste.
  - How transport using a certified hauler could reduce the potential for spills or accidents: the haulers, being certified, trained, and insured, will have developed a greater awareness of safety and responsibility than haulers without these attributes. Monitoring of dust levels will be conducted and dust control measures will be implemented to limit dust emissions to acceptable levels, including spraying of water and use of plastic sheeting.

- Surface confirmation sampling will be conducted post removal activities to assess the actual effectiveness of removing visible surface materials within RA2 (excluding cells HAB-12 through HAB-14) to achieve the Remedial Action Objectives (RAOs).

- The post-construction phase will consist of containment unit post-closure requirements and institutional controls. At a minimum and to protect the integrity of the Area of Contamination (AOC) Engineered Unit, these will include a deed restriction limiting future use of the area of the AOC Engineered Unit, site security, and monitoring and maintenance of the AOC Engineered Unit, and potential groundwater monitoring sufficient to detect a potential releases from the AOC Engineered Unit.

- The AOC Engineered Unit will have to be protected from accidental subsurface intrusion by the public. This could be accomplished by fencing or by developing the surface of the AOC Engineered Unit as a parking lot, for example.

- Various access control measures include the following:
  - The site is fenced to prevent general public access. There is one access point south of the lodge. A log will be kept of all personnel entering and exiting the site from this access point;

  - Vehicles will only be allowed to approach and leave the vicinity of RA2 using the ingress and egress road with tracking control; and
  - Vehicles will not be allowed to enter RA2 or the MSCP Preserve Area north of the Berm. During remediation activities, appropriate areas of the project site will be fenced to prevent access to construction equipment and remediation activities.

- The remediation of the site will be designed to protect the scenic values of the Otay River Valley floodplain. High-vacuum truck(s) and support vehicles will be located on the shooting range outside of the MSCP Preserve Area. Vacuuming will be done around the existing native species of plants. Hand raking will be done as necessary to loosen debris in the top soil during vacuuming. No direct impacts to sensitive species will occur using vacuuming and raking. Removed materials will be consolidated in the area of the site within the AOC Engineered Unit.

- Lighting of all developed areas adjacent to the MSCP Preserve should be directed away from the MSCP Preserve wherever feasible and consistent with public safety. Where necessary, development should provide adequate shielding with noninvasive plant material (preferably native), berming, and/or other methods to protect the MSCP Preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting. No lighting impacts to the MSCP Preserve are anticipated. No new lighting facilities are planned for this site.

- Project Applicant will also comply with the City of Chula Vista and the *City of Chula Vista MSCP Subarea Plan* requirements, including requirements associated with the City's Habitat Loss and Incidental Take (HLIT) Ordinance. In addition, a Storm Water Pollution Prevention Plan (SWPPP) shall be developed, submitted, and implemented during project implementation to control storm water runoff such that erosion, sedimentation, pollution, etc. are minimized. Measures that may be incorporated into the SWPPP include the use of silt fencing, hay bales, and straw wattles.

- An area within RA1 and/or an asphalt parking lot will be used to stockpile removed debris. The stockpile location will be surrounded with hay bales (if necessary). If the stockpile is placed on clean soil or the asphalt parking lot, 10 mil plastic liner will be placed on the ground and over the hay bales. Material stockpiles shall be misted with water or covered when not in use to minimize dust affecting adjacent native vegetation.
- A qualified cultural/paleontological monitor will be on-site, as required, during the grading process to remove or relocate the contaminated soils, in order to identify any historic or prehistoric archaeological sites or identify potential paleontological resources.

9. Surrounding land uses and setting:
Lands surrounding the project site are used for residential uses to the southwest, the Cricket Wireless Amphitheatre and Knotts Soak City USA to the west, and the Vulcan Materials Company Quarry to the northeast. The topography of the project site and adjacent land is generally flat. The site is located within 2.2 miles west of State Highway (SR) 125, 1.2 miles north of SR 905, and 1.9 miles east of Interstate 805.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

Permit Type/Action	**Agency**
Habitat Loss Permit	City of Chula Vista
Minor Grading Permit	City of Chula Vista
General Construction Storm Water Permit	Regional Water Quality Control Board (RWQCB)

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The environmental factors checked below would be potentially affected by this project and involve at least one impact that is a "Potentially Significant Impact" or a "Less Than Significant With Mitigation Incorporated," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forest Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology & Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Haz. Materials	☐ Hydrology & Water Quality
☐ Land Use & Planning	☐ Mineral Resources	☒ Noise
☐ Population & Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☐ Utilities & Service Systems	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

☐ On the basis of this Initial Study, the Department of Planning and Land Use finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ On the basis of this Initial Study, the Department of Planning and Land Use finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ On the basis of this Initial Study, the Department of Planning and Land Use finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature	Date
Dennis Campbell	Land Use/Environmental Planner
Printed Name	Title

INSTRUCTIONS ON EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, Less Than Significant With Mitigation Incorporated, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance

I. AESTHETICS -- Would the project:

a) Have a substantial adverse effect on a scenic vista?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

A vista is a view from a particular location or composite views along a roadway or trail. Scenic vistas often refer to views of natural lands, but may also be compositions of natural and developed areas, or even entirely of developed and unnatural areas, such as a scenic vista of a rural town and surrounding agricultural lands. What is scenic to one person may not be scenic to another, so the assessment of what constitutes a scenic vista must consider the perceptions of a variety of viewer groups.

The items that can be seen within a vista are visual resources. Adverse impacts to individual visual resources or the addition of structures or developed areas may or may not adversely affect the vista. Determining the level of impact to a scenic vista requires analyzing the changes to the vista as a whole and also to individual visual resources.

No Impact: The project site is located in the Otay valley, immediately south of the Otay River. The Otay River is part of a large interconnected open space system within the City of Chula Vista that is referred to as the Chula Vista Greenbelt. The Chula Vista Greenbelt generally contains "valued scenic vistas and open space" with the city. The project site is also located within the Otay Valley Regional Park, which overlaps much of the designated open space within the Chula Vista Greenbelt. However, based on a site visit by County staff Dennis Campbell**,** on March 24, 2011, the proposed project is not located near or within, or visible from, a scenic vista and will not substantially change the composition of an existing scenic vista in a way that would adversely alter the visual quality or character of the view. Therefore, the proposed project will not have an adverse effect on a scenic vista.

The project will not result in cumulative impacts on a scenic vista because the proposed project viewshed and past, present and future projects within that viewshed were evaluated to determine their cumulative effects. Refer to XVIII. Mandatory Findings of Significance, which identifies that there are no cumulative projects in the vicinity. Therefore, the project will not result in adverse project or cumulative impacts on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

State scenic highways refer to those highways that are officially designated by the California Department of Transportation (Caltrans) as scenic (Caltrans - California Scenic Highway Program). Generally, the area defined within a State scenic highway is the land adjacent to and visible from the vehicular right-of-way. The dimension of a scenic highway is usually identified using a motorist's line of vision, but a reasonable boundary is selected when the view extends to the distant horizon. The scenic highway corridor extends to the visual limits of the landscape abutting the scenic highway.

No Impact: Based on a site visit completed by Dennis Campbell**,** on March 24, 2011, the proposed project is not located near or visible within the composite viewshed of a State scenic highway and will not damage or remove visual resources within a State scenic highway. The project site is not located on portions of SR 78 (through Anza-Borrego Desert State Park) and SR 125 (from SR 94 to I-8), which are designated as State scenic highways. Therefore, the proposed project will not have any substantial adverse effect on a scenic resource within a State scenic highway.

While there are no State designated scenic highways within or adjacent to the project site, there are two city designated scenic roadways located in the immediate vicinity of the project. Main Street, between I-805 and Heritage Road) and Heritage Road (between Telegraph Canyon Road and the city's southern boundary). The viewshed from these two roadways are dominated by undeveloped open space and the large recreational facility (amphitheatre and water park) within the vicinity of the project site. Implementation of the project will not adversely affect the existing character of either of these two existing viewshed features.

The project will not result in cumulative impacts on a scenic vista because there are no cumulative projects in the vicinity (refer to XVIII. Mandatory Findings of Significance). Therefore, the project will not result in any adverse project or cumulative level effect on a scenic resource within a State scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project does not propose any visible alterations to the visual environment, including landform modification or construction. The proposed project is a remediation project that would not involve development of any type. Therefore, the

project will not alter the existing visual character or quality of the project site and surrounding area.

The project will not result in cumulative impacts on visual character or quality because there are no cumulative projects in the vicinity (refer to XVIII. Mandatory Findings of Significance). Therefore, the project will not result in any adverse project or cumulative level effect on visual character or quality on-site or in the surrounding area.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not propose any use of outdoor lighting or building materials with highly reflective properties such as highly reflective glass or high-gloss surface colors. Therefore, the project will not create any new sources of light pollution that could contribute to skyglow, light trespass or glare and adversely affect day or nighttime views in area.

II. AGRICULTURE AND FORESTRY RESOURCES -- Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (Important Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, or other agricultural resources, to non-agricultural use?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project site has land designated as Local Importance according to the State Farmland Mapping and Monitoring Program (FMMP). However, based on a site visit and a review of historic aerial photography, there is no evidence of agricultural use on the project site since before 1970. This date is at least four years prior to the last FMMP mapping date. In order to qualify for the Prime Farmland, Unique Farmland, Farmland of Statewide or Local Importance designations, land must have been cropped at some time during the four years prior to the last FMMP mapping date. Given the lack of agricultural use on the site within at least the past 40 years, the Local Importance designation of this area according to the State is incorrect. The Farmland designation is likely misapplied as a result of the large scale of the Statewide mapping effort which assigns Farmland designations based on aerial photography and limited ground verification. Therefore, due to the lack of historic agricultural use at the project site, the site does not meet the definition of an agricultural resource and no potentially significant project or cumulative level conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance to a non-agricultural use will occur as a result of this project.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project site is zoned P-C, which is not considered to be an agricultural zone. Additionally, the project site's land is not under a Williamson Act Contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), or timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project site, including offsite improvements, does not contain forest lands or timberland. The County of San Diego does not have any existing Timberland Production Zones. In addition, the project is consistent with existing zoning and a rezone of the property is not proposed. Therefore, project implementation would not conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland production zones.

d) Result in the loss of forest land, conversion of forest land to non-forest use, or involve other changes in the existing environment, which, due to their location or nature, could result in conversion of forest land to non-forest use?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project site, including any offsite improvements, do not contain any forest lands as defined in Public Resources Code section 12220(g), therefore project implementation would not result in the loss or conversion of forest land to a non-forest use. In addition, the project is not located in the vicinity of offsite forest resources.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Important Farmland or other agricultural resources, to non-agricultural use?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation
☒ Less than Significant Impact
☐ No Impact

Incorporated
Discussion/Explanation:

Less Than Significant Impact: The project site and/or surrounding area within approximately two to three miles radius have Local Importance. As a result, the proposed project was reviewed by Dennis Campbell, County Agricultural Specialist and was determined not to have significant adverse impacts related to the conversion of Prime Farmland, Unique Farmland, Farmland of Statewide or Local Importance or active agricultural operations to a non-agricultural use for the following reasons:

- Although the project site and surrounding area is designated as Farmland of Local Importance, the project site has been developed and utilized as a shooting range since before the 1970s and the surrounding area is currently not utilized for agricultural purposes.

- The project site and surrounding area is zoned as P-C in anticipation of being developed.

- The nearest Farmland of State Importance is over 2.0 miles away and the nearest Prime Farmland is located over 3.5 miles away.

Therefore, no potentially significant project or cumulative level conversion of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance to a non-agricultural use will occur as a result of this project.

III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project involves remediation of surface and subsurface areas impacted from shooting range activities at the site. However, as discussed in the *Air Quality Impact Analysis*, dated December 2011, prepared by TRC Solutions, Inc., (TRC) on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013, the project is not expected to conflict with either the RAQS or the SIP for the following reasons: (1) it would not exceed South Coast Air Quality Management District (SCAQMD) thresholds for construction activities (refer to Section III[b], Air Quality); (2) the project does not proposed development that

was not anticipated in San Diego Association of Governments (SANDAG) growth projections used in development of the RAQS and SIP; and (3) the project will not emit toxic air contaminants as identified by the California Air Resources Board (CARB). Therefore, the project will not conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP on a project level.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation: In general, air quality impacts are the result of emissions from motor vehicles, and from short-term construction activities associated with such projects. The San Diego County Land Use Environment Group (LUEG) has established guidelines for determining significance which incorporate the APCD established screening-level criteria for all new source review (NSR) in APCD Rule 20.2. These screening-level criteria can be used as numeric methods to demonstrate that a project's total emissions (e.g. stationary and fugitive emissions, as well as emissions from mobile sources) would not result in a significant impact to air quality. Since the APCD does not have screening-level criteria for emissions of volatile organic compounds (VOCs), the use of the screening level for reactive organic compounds (ROC) from the SCAQMD for the Coachella Valley (which are more appropriate for the San Diego Air Basin) are used.

Less Than Significant With Mitigation Incorporated: Both the State of California and the federal government has established health-based Ambient Air Quality Standards (AAQS) for six criteria air pollutants. The pollutants are carbon monoxide (CO), ozone (O_3), nitrogen oxides (NO_X), sulfur oxides (SO_X), particulate matter up to 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and lead (Pb). O_3 is formed by a photochemical reaction between NO_X and ROCs. Thus, impacts from O_3 are assessed by evaluating impacts from NO_X and ROCs.

The APCD is responsible for developing and implementing programs that will meet state and federal mandates, such as attainment. Area attainment designations, which are based on the most recent available data, indicate the healthfulness of the air quality throughout the state. An area is classified as attainment, unclassified, or nonattainment, depending on whether the monitored ambient air quality data shows compliance, insufficient data, or non-compliance with the AAQS, respectively. The 2011 APCD attainment status is presented in Table 1, APCD 2011 Attainment Status.

Table 1
APCD 2011 Attainment Status

Pollutant	Federal	State
O_3 (1-hour)	Attainment	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
Nitrous oxide (N_20)	Attainment	Attainment
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen Sulfide	(no federal standard)	Unclassified
Source: http://www.sdapcd.org/info/facts/attain.pdf.		

The net increase in pollutant emissions determines the significance and impact on regional air quality as a result of the proposed project. As previously described, the APCD have not developed specific California Environmental Quality Act (CEQA) significant thresholds for either operational or construction activities. As a result, the analysis will refer to the SCAQMD significance thresholds for construction activities, as listed in Table 2, SCAQMD Construction Significance Thresholds, which have been found to be representative and applicable to projects in southern California.

Table 2
SCAQMD Construction Significance Thresholds

Criteria Pollutant	Threshold (pounds/day)
CO	550
NO_X	100
VOC/ROG	75
SO_X	150
PM_{10}	150
$PM_{2.5}$	55
Source: www.aqmd.gov/ceqa/handbook/signthres.pdf	

As illustrated in Tables 3 through 8, the project would not exceed the SCAQMD thresholds for any of the proposed six phases of remediation activities.

Table 3
Phase 1 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.18	1.68	0.17	0.002	0.02	0.01	242.34	0.02
Off-Road Mobile Sources								
Excavator	1.03	5.34	7.69	0.01	0.01	0.42	896.00	0.09
Loader	0.85	4.69	6.64	0.01	0.004	0.35	808.00	0.08
Water truck	0.46	2.28	3.32	0.004	0.002	0.18	375.00	0.04
Materials movement truck	0.77	3.80	5.54	0.01	0.003	0.31	625.00	0.07
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	50.59	0.001
Materials movement truck	0.51	2.04	6.18	0.01	0.30	0.26	843.18	0.02
Fugitive Dust								
					[a]69 [b]0.19			
Peak Day	**3.81**	**19.96**	**29.91**	**0.04**	**69.35**	**1.55**	**3,840.11**	**0.32**
Phase Totals	**95.36**	**498.98**	**747.74**	**1.03**	**1,733.76**	**38.69**	**96,002.70**	**7.99**
Significance Thresholds (lbs/day)	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions
Excavator - 1 @ 8 hours a day = 8 hours/day ; Loader - 1 @ 8 hours a day = 8 hours/day
On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 vehicle miles traveled (VMT)/day
Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day
On-Road Truck for Materials Movement - 10 trucks, 20 one way trips of 10 miles per trip = 200 VMT/day
Off-Road Truck for Materials Movement (time spent moving materials) 5 hours/day/truck = 5 hours/day
Passenger Vehicles (workers) - 11 employees, 22 one way trips of 10 miles per trip = 220 VMT/day
[a] Acreage Based Fugitive Dust - Emission factor of 26.4 pounds per day per acre (lbs/day/acre) from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 10 acre of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) *http://www.wrapair.org/forums/dejf/fdh/index.html* - [26.4 lbs x 10 acre = 264 lbs with 74% control efficiency = 69 lbs/day]
[b] Volume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of U.S. EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, *http://www.calclim.dri.edu/ccda/comparative/avgwind.html*). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.
Phase duration is 25 days. Phase totals are peak day multiplied by phase duration. Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM. Total PM based on: Excavator = PM emission factor of 0.0569 x 8 hours = 0.45521 lbs/day; Loader = PM emission factor of 0.0478 x 8 hours = 0.3824 lbs/day; Off-road water truck = PM emission factor of 0.0666 x 3 hours = 0.1998 lbs/day; Off-road materials movement truck = PM emission factor of 0.0666 x 5 hours = 0.333 lbs/day

Table 4
Phase 2 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.40	3.83	0.39	0.01	0.04	0.03	550.76	0.04
Off-Road Mobile Sources								
Excavator	1.16	6.01	8.65	0.01	0.01	0.47	1,008.00	0.10
Dozer	1.10	4.26	8.15	0.01	0.005	0.43	647.38	0.10
Scraper	7.87	29.66	69.34	0.07	0.03	2.70	7,087.39	0.71
Grader	0.62	2.95	4.77	0.01	0.003	0.25	496.00	0.06
Water truck	0.46	2.28	3.32	0.00	0.002	0.18	375.00	0.04
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	50.59	0.001
Fugitive Dust								
					[a]144 [b]1.53			
Peak Day	**11.65**	**49.10**	**94.99**	**0.11**	**144.11**	**4.09**	**10,215.12**	**1.05**
Phase Totals	**582.29**	**2,455.23**	**4,749.68**	**5.36**	**7,205.34**	**204.33**	**510,756.19**	**52.45**
Significance Thresholds (lbs/day)	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions
Excavator - 1 @ 9 hours a day = 9 hours/day
Dozer - 1 @ 5 hours a day = 5 hours/day
Scraper - 3 @ 9 hours a day = 27 hours/day
Grader - 1 @ 4 hours a day = 4 hours/day
On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 VMT/day
Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day
Passenger Vehicles (workers) - 25 employees, 50 one way trips of 10 miles per trip = 500 VMT/day
[a] Fugitive Dust - Emission factor of 26.4 lbs/day/acre from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 21 acres of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) *http://www.wrapair.org/forums/dejf/fdh/index.html* - [26.4 lbs x 21 acres = 554 lbs with 74% control efficiency = 144 lbs/day]
[b] Volume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of US EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, *http://www.calclim.dri.edu/ccda/comparative/avgwind.html*). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.
Phase duration is 50 days. Phase totals are peak day multiplied by phase duration.
Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM. Total PM is based on: Excavator = PM emission factor of 0.0569 x 9 hours = 0.5121 lbs/day. Dozer = PM emission factor of 0.0945 x 5 hours = 0.4725 lbs/day. Scraper = PM emission factor of 0.0945 x 27 hours = 2.5515 lbs/day. Grader = PM emission factor of 0.0688 x 4 hours = 0.2752 lbs/day. Off-road water truck = PM emission factor of 0.0666 x 3 hours = 0.1998 lbs/day.

Table 5
Phase 3 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.40	3.83	0.39	0.01	0.04	0.03	550.76	0.04
Off-Road Mobile Sources								
Excavator	1.16	6.01	8.65	0.01	0.01	0.47	1,008.00	0.10
Dozer	1.99	7.68	14.67	0.01	0.01	0.78	1,165.29	0.18
Scraper	5.25	19.77	46.22	0.05	0.02	1.80	4,724.92	0.47
Grader	0.78	3.68	5.97	0.01	0.003	0.32	620.00	0.07
Roller	0.95	3.69	5.96	0.01	0.01	0.48	531.00	0.09
Water truck	0.46	2.28	3.32	0.004	0.002	0.18	375.00	0.04
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	50.59	0.001
Fugitive Dust								
					[a]144 [b]1.02			
Peak Day	**11.01**	**47.05**	**85.55**	**0.10**	**144.11**	**4.07**	**9,025.57**	**0.99**
Phase Totals	**1,100.93**	**4,705.44**	**8,555.34**	**9.65**	**14,410.66**	**407.31**	**902,556.86**	**99.14**
Significance Thresholds (lbs/day)	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions
Excavator - 1 @ 9 hours a day = 9 hours/day; Dozer - 1 @ 9 hours a day = 9 hours/day
Scraper - 2 @ 9 hours a day = 18 hours/day; Grader - 1 @ 5 hours a day = 5 hours/day; Roller - 1 @ 9 hours a day = 9 hours/day
On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 VMT/day
Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day
Passenger Vehicles (workers) - 25 employees, 50 one way trips of 10 miles per trip = 500 VMT/day
[a] Fugitive Dust - Emission factor of 26.4 lbs/day/acre from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 21 acres of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) *http://www.wrapair.org/forums/dejf/fdh/index.html* - [26.4 lbs x 21 acres = 554 lbs with 74% control efficiency = 144 lbs/day]
[b] Volume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of US EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, *http://www.calclim.dri.edu/ccda/comparative/avgwind.html*). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.
Phase duration is 100 days. Phase totals are peak day multiplied by phase duration.

Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM.
Total PM is based on:
Excavator = PM emission factor of 0.0569 x 9 hours = 0.5121 lbs/day.
Dozer = PM emission factor of 0.0945 x 9 hours = 0.8505 lbs/day.
Scraper = PM emission factor of 0.0945 x 18 hours = 1.701 lbs/day.
Grader = PM emission factor of 0.0688 x 5 hours = 0.344 lbs/day.
Roller = PM emission factor of 0.0574 x 9 = 0.513 lbs/day
Off-road water truck = PM emission factor of 0.0666 x 3 hours = 0.1998 lbs/day.

Table 6
Phase 4 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.24	2.30	0.23	0.003	0.03	0.02	330.00	0.02
Off-Road Mobile Sources								
Loader	0.85	4.69	6.64	0.009	0.004	0.35	808.00	0.08
Water truck	0.46	2.28	3.32	0.004	0.002	0.18	375.00	0.04
Materials Movement Truck	0.61	3.04	4.43	0.006	0.003	0.25	500.00	0.06
Vac Truck	2.45	12.15	17.72	0.022	0.01	0.98	2,000.00	0.22
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	51.00	0.001
Fugitive Dust								
					[a]144			
					[b]0.04			
Peak Day	**4.64**	**24.58**	**32.70**	**0.04**	**144.06**	**1.79**	**4,064.05**	**0.42**
Phase Totals	**139.47**	**738.16**	**983.90**	**1.34**	**4,322.05**	**53.93**	**122,259.46**	**12.50**
Significance Thresholds (lbs/day)	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions

Loader - 1 @ 8 hours a day = 8 hours/day ; On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 VMT/day

Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day

On-Road Vacuum Trucks - 2 trucks, 4 one way trips of 10 miles per trip = 40 VMT/day.
These emissions are not daily. Essentially the off-road Vacuum Truck comes to the site and stays the duration of the phase and then leaves. The below emissions are thereby added to the Phase Totals, not Peak Daily totals.

Off-Road Vacuum Truck (time spent vacuuming materials) 8 hours/day/truck = 16 hours/day

Off-Road Truck for Materials Movement (time spent moving materials) - 4 hours/day/truck = 4 hours/day

On-Road Trucks for Materials Movement - 2 trucks, 4 one way trips of 10 miles per trip = 40 VMT/day.
These emissions are not daily. Essentially the off-road Truck for Materials Movement comes to the site and stays the duration of the phase and then leaves. The below emissions are thereby added to the Phase Totals, not Peak Daily totals.

Passenger Vehicles (workers) - 15 employees, 30 one way trips of 10 miles per trip = 300 VMT/day

a Fugitive Dust - Emission factor of 26.4 lbs/day/acre from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 21 acres of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) http://www.wrapair.org/forums/dejf/fdh/index.html - [26.4 lbs x 21 acres = 554 lbs with 74% control efficiency = 144 lbs/day]

bVolume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of US EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, http://www.calclim.dri.edu/ccda/comparative/avgwind.html). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the

aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.
Phase duration is 30 days. Phase totals are peak day multiplied by phase duration + Vac trucks and Materials Movement trucks.
Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM. Total PM is based on: Loader = PM emission factor of 0.0530 x 8 hours = 0.424 lbs/day Off-road water truck = PM emission factor of 0.0730 x 3 hours = 0.219 lbs/day; Off-road Vac truck = PM emission factor of 0.0730 x 16 hours = 1.168 lbs/day; Off-road Truck for Materials Movement = PM emission factor of 0.0730 x 4hours = 0.292 lbs/day

Table 7
Phase 5 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.24	2.30	0.23	0.003	0.03	0.02	330.00	0.02
Off-Road Mobile Sources								
Excavator	1.03	5.34	7.69	0.01	0.005	0.42	896.00	0.09
Loader	0.85	4.69	6.64	0.009	0.004	0.35	808.00	0.08
Water truck	0.32	1.76	2.49	0.003	0.001	0.13	375.00	0.03
Materials movement truck	2.54	14.08	19.91	0.026	0.01	1.06	3,000.00	0.23
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	51.00	0.001
Fugitive Dust								
					[a]144 [b]0.04			
Peak Day	**5.00**	**28.29**	**37.32**	**0.05**	**144.07**	**1.99**	**5,460.05**	**0.45**
Phase Totals	**50.19**	**283.59**	**375.31**	**0.53**	**1,440.76**	**19.99**	**54,853.49**	**4.49**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions
Excavator - 1 @ 8 hours a day = 8 hours/day
Loader - 1 @ 8 hours a day = 8 hours/day
On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 VMT/day
Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day
On-Road Trucks for Materials Movement - 3 trucks, 6 one way trips of 10 miles per trip = 60 VMT/day. These emissions are not daily. Essentially the off-road Truck for Materials Movement comes to the site and stays the duration of the phase and then leaves. The below emissions are thereby added to the Phase Totals, not Peak Daily totals.
Off-Road Truck for Materials Movement - time spent moving materials onsite 8 hours/day/truck = 24 hours/day
Passenger Vehicles (workers) - 15 employees, 30 one way trips of 10 miles per trip = 300 VMT/day
[a] Fugitive Dust - Emission factor of 26.4 lbs/day/acre from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 21 acres of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) *http://www.wrapair.org/forums/dejf/fdh/index.html* - [26.4 lbs x 21 acres = 554 lbs with 74% control efficiency = 144 lbs/day]
[b] Volume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of US EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, *http://www.calclim.dri.edu/ccda/comparative/avgwind.html*). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.
Phase duration is 10 days. Phase totals are peak day multiplied by phase duration + on-road Truck for Materials Movement.
Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM. Total PM is based on: Excavator = PM emission factor of 0.0627 x 8 hours = 0.5016 lbs/day; Loader = PM emission factor of 0.0530 x 8 hours = 0.424 lbs/day; Off-road water truck = PM emission factor of 0.0730 x 3 hours = 0.219 lbs/day; Off-road Truck for Materials Movement = PM emission factor of 0.0730 x 24 hours = 1.752 lbs/day

Table 8
Phase 6 Emissions - Scenario Year 2012

Source	VOC (lbs/day)	CO (lbs/day)	NO_X (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2 (lbs/day)	CH_4 (lbs/day)
On-Road Passenger Vehicles								
Construction Workers	0.25	2.45	0.25	0.003	0.03	0.02	352.00	0.02
Off-Road Mobile Sources								
Excavator	1.03	5.34	7.69	0.01	0.01	0.42	896.00	0.09
Loader	0.85	4.69	6.64	0.01	0.004	0.35	808.00	0.08
Dozer	1.77	6.82	13.04	0.01	0.01	0.70	1,036.00	0.16
Water truck	0.46	2.28	3.32	0.004	0.002	0.18	375.00	0.04
On-Road Mobile Sources								
Water truck	0.03	0.12	0.37	0.0005	0.02	0.02	51.00	0.001
Materials movement truck	1.01	4.09	12.37	0.02	0.60	0.52	1,686.00	0.05
Fugitive Dust								
					[a]21 [b]0.06			
Other Construction Equipment								
Wood Chipper	0.67	2.19	2.17	0.003	0.002	0.17	224.00	0.06
Peak Day	**6.07**	**27.99**	**45.85**	**0.06**	**21.66**	**2.37**	**5,428.26**	**0.50**
Phase Totals	**121.47**	**559.71**	**916.90**	**1.17**	**433.29**	**47.38**	**108,565.12**	**10.03**
Significance Thresholds	75	550	100	150	150	55	NE	NE
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**		

*NE = None established by either SCAQMD or SDAPCD.

Peak Day Assumptions

Excavator - 1 @ 8 hours a day = 8 hours/day; Loader - 1 @ 8 hours a day = 8 hours/day; Dozer - 1 @ 8 hours a day = 8 hours/day

Other construction equipment (wood chipper) = 1 @ 8 hours a day = 8 hours/day

On-Road Water Truck - 1 truck, 12 one way trips of 1 mile per trip = 12 VMT/day

Off-Road Water Truck [time spent applying water onsite] - 3 hours/day/truck = 3 hours/day

On-Road Truck for Materials Movement - 20 trucks, 40 one way trips of 10 miles per trip = 400 VMT/day

Off-Road Materials Movement Truck (time spent moving materials) = trucks will not enter the site.

Passenger Vehicles (workers) - 16 employees, 32 one way trips of 10 miles per trip = 320 VMT/day

[a] Fugitive Dust - Emission factor of 26.4 lbs/day/acre from SCAQMD CEQA Handbook Table A9-9 (assuming graded surfaces as worst-case scenario). Incorporation of 74% control efficiency for application of water to 21 acre of disturbed surfaces daily at 1-2 hr intervals (Western Regional Air Partnership Fugitive Dust Handbook, 2006.) *http://www.wrapair.org/forums/dejf/fdh/index.html* - [26.4 lbs x 3 acre = 79.2 lbs with 74% control efficiency = 21 lbs/day]

[b] Volume Based Fugitive Dust – Emission factor of 0.000242 lb/ton of material was calculated using guidelines outlined in Section 13.2.4 of US EPA's AP-42 emissions calculation guidance document. The emission factor is calculated based upon site specific soil moisture, wind speed, and particle size distribution data. Average wind speed was obtained from historical meteorological data from the San Diego /Brown Field Monitoring Station, (California Climate Data Archive, *http://www.calclim.dri.edu/ccda/comparative/avgwind.html*). Soil moisture and particle size distribution data was obtained from preliminary soil samples gathered by TRC. Due to the lack of data concerning the particle distribution in the < 30 µm range the aerodynamic particle size multiplier was conservatively assumed to be 1 for all soil handled on the site.

Phase duration is 20 days. Phase totals are peak day multiplied by phase duration.

Off-Road Combustion based on SCAQMD PM2.5 Methodology = PM10 is 1% of total PM; and PM2.5 is 92% of total PM. Total PM is based on: Excavator = PM emission factor of 0.0569 x 8 hours = 0.4552 lbs/day.; Loader = PM emission factor of 0.0478 x 8 hours = 0.3824 lbs/day.; Dozer = PM emission factor of 0.0945 x 8 hours = 0.756 lbs/day; Off-road water truck = PM

emission factor of 0.0666 x 3 hours = 0.1998 lbs/day

Although none of the six phases exceed SCAQMD thresholds, mitigation measures have been included in order to ensure impacts regarding air emissions remain below a level of significance. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Mitigation Measures:

AQ-1 The project applicant will implement the following best management practices (BMPs) to further reduce emissions during temporary construction activities.

- Individual truck idling in excess of five consecutive minutes will be prohibited, unless allowed under Title 13 of the California Code of Regulations §2485 (California Air Resources Board's [CARB's] Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling).

- Suspend the use of all construction equipment during first-stage smog alerts.

- Electricity or alternative fuels for on-site mobile equipment will be used instead of diesel equipment to the extent feasible.

- Electric equipment will be used to avoid emissions from gas or diesel equipment in portions of the project site where electricity is available.

- Diesel-power construction equipment shall use low-sulfur diesel fuel.

- Water will be used during construction activities to control fugitive dust. It will be applied every one to two hours.

- Suspend grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.

- Minimize disturbed areas during construction.

- Post and enforce speed limits to reduce airborne fugitive dust from vehicular traffic during construction.

- Ensure that all construction equipment is properly tuned and maintained prior to and for the duration of construction.

- Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, require CARB Portable Equipment Registration or local APCD permit.

- Provide adequate ingress and egress to minimize vehicle idling and traffic congestion.

AQ-2 The following mitigation measures from the *Otay Ranch General Development Plan Program Environmental Impact Report* (EIR) shall be included as notes on the grading plans and implemented throughout project implementation, where feasible and applicable.

- Minimize simultaneous operation of multiple construction equipment units;
- Use low pollutant-emitting construction equipment as practical;
- Use electrical construction equipment as practical;
- Use catalytic reduction for gasoline-powered equipment;
- Use injection timing retard for diesel-powered equipment;
- Water the construction areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Pave permanent roads as quickly as possible to minimize dust;
- Use electricity from power poles instead of temporary generators during site activities, as feasible;
- Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;
- Remove any visible track-out into traveled public streets within 30 minutes of occurrence;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;

- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; and

- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 miles per hour.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ No Impact

Discussion/Explanation: San Diego County is presently in non-attainment for the 1-hour concentrations under the California Ambient Air Quality Standard (CAAQS) for O_3. San Diego County is also presently in non-attainment for the annual geometric mean and for the 24-hour concentrations of PM_{10} under the CAAQS. O_3 is formed when VOCs and NO_x react in the presence of sunlight. VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil); solvents; petroleum processing and storage; and pesticides. Sources of PM_{10} in both urban and rural areas include: motor vehicles, wood burning stoves and fireplaces, dust from construction, landfills, agriculture, wildfires, brush/waste burning, and industrial sources of windblown dust from open lands.

Less Than Significant With Mitigation Incorporated: As discussed in Section III(b), Air Quality, the project would include mitigation measures to ensure that impacts relating to air emissions during the remediation activities remain below a level of significance. Therefore, even though there are no cumulative projects within the vicinity, the project would require mitigation to ensure that there would not be any cumulatively considerable net increase of any criteria pollutants for which the San Diego Air Basin (Basin) is in non-attainment status (1-hour concentrations of O_3 and 24-hour concentrations of PM_{10}).

Mitigation Measures: Refer to Mitigation Measures AQ-1 and AQ-2.

d) Expose sensitive receptors to substantial pollutant concentrations?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ No Impact

Discussion/Explanation:

Air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The County of San Diego also considers residences as sensitive receptors since they house children and the elderly.

Less Than Significant With Mitigation Incorporated: The only sensitive receptors within the vicinity of the project site are the residential uses located approximately 1,500 feet southwest. There are no schools, hospitals, resident care facilities, or day-care centers within one-quarter of a mile of the project site. As analyzed in Section III(b), Air Quality, the project will include mitigation measures to ensure that air emissions associated with the remediation activities would not expose sensitive receptors to substantial pollutant concentrations.

Mitigation Measures: Refer to Mitigation Measures AQ-1 and AQ-2.

e) Create objectionable odors affecting a substantial number of people?

☐	Potentially Significant Impact	☐	Less than Significant Impact
☒	Less Than Significant With Mitigation Incorporated	☐	No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: Construction activity may generate detectable odors from heavy-duty equipment exhaust. Any detectable odors or heavy-duty equipment exhaust would be primarily associated with the initial construction and would be considered short-term impacts. In addition, implementation of the specified mitigation (refer to Mitigation Measures AQ-1 and AQ-2) would further reduce construction equipment exhaust and potential odors to a less than significant level.

Mitigation Measures: Refer to Mitigation Measures AQ-1 and AQ-2.

IV. BIOLOGICAL RESOURCES -- Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

☐	Potentially Significant Impact	☐	Less than Significant Impact
☒	Less Than Significant With Mitigation Incorporated	☐	No Impact

Discussion/Explanation:

Less than Significant with Mitigation Incorporated: A *Biological Resources Assessment*, dated February 20, 2012, prepared by TRC, and on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013, was prepared for the project. The results of the *Biological Resources Assessment* are described below.

Special Status Vegetation Communities

Special status vegetation communities are those that are considered rare within the region, support special status plant and/or wildlife species, or are important in providing connections for wildlife movement. Coastal sage scrub (CSS) is a special status vegetation community that occurs within RA2.

CSS is considered a special status habitat by the resource agencies and is designated a Tier II habitat in the *City of Chula Vista MSCP Subarea Plan*. CSS was listed as the third most extensive vegetation community in the county over 25 years ago. However, it has been suggested that up to 72 percent of the county's original sage scrub habitat has been destroyed or modified, and this loss has continued throughout the last decade, primarily due to agriculture, grazing, and urban expansion. Approximately 3.9 acres of CSS were found within RA2, but no impacts are proposed.

Although non-native grassland is not a naturally occurring vegetation community, it is designated a Tier III habitat by the *City of Chula Vista MSCP Subarea Plan* because it often supports native wildlife species. There are approximately 28.8 acres of non-native grassland on the project site within RA1.

Special Status Plants

Based on the review of literature relevant to the site and surrounding areas, several special-status plant species are known to occur in the vicinity of the site. Based on the results of the field surveys, the potential for occurrence has been determined for each plant species. Of the plant species addressed, below is a description of those found on-site and those having a high to moderate potential to be on-site. Only one special-status plant was observed during the focused surveys, namely the San Diego marsh elder (*Iva hayesiana*) (California Native Plant Society [CNPS] List 2.2). A CNPS List 4 species was also observed but is not considered special-status, specifically the San Diego Sunflower (*Viguiera laciniata*) (CNPS List 4). No Narrow Endemic Species were found during focused surveys.

<u>Special Status Plants Found On-Site</u>

- San Diego Marsh Elder (*Iva hayesiana*; CNPS List 2, MSCP Not covered) - This perennial shrub occurs in southwestern San Diego County and northern Baja California. It is frequent in low-lying, moist or alkaline places along the coast and has been recorded along intermittent streams. Although rare in the County, this species is apparently more common and widespread south of the border. Within

the project, approximately 85 San Diego marsh elder plants were identified within the CSS areas of RA2.

- San Diego Sunflower (*Viguiera laciniata*; CNPS List 4, MSCP Not covered) - San Diego sunflower is an upright, woody shrub that occurs in CSS and chaparral. Its current range is limited to Orange County, San Diego County, Baja California, and Sonora Mexico. This species occurs on a variety of soil types and is still common, especially in Jamul and Lower Otay and Sweetwater Lakes. There were scattered individuals located within the CSS found in the eastern portion of RA2. San Diego sunflower is common and widespread off-site to the north of RA3.

Special Status Plants with a High to Moderate Potential for Occurring On-Site

- Otay Tarplant (*Deinandra conjugens*; Federally Threatened [FT], State Endangered [SE], MSCP Covered Narrow Endemic) - Otay tarplant was listed as Endangered by the California Department of Fish and Game (CDFG) in 1979 and as Threatened by United States Fish and Wildlife Service (USFWS) in 1998. Otay tarplant is endemic to southern San Diego County and typically occurs on fractured clay soils with little or no shrub cover. No Otay Tarplant was located within the RAs during any of the surveys. However, the species was identified directly south of RA1. Due to the proximity of the occurrence and similar habitat conditions located on-site, this species has a moderate potential for occurring within RA1. This species is a Narrow Endemic Species pursuant to Section 5.2.3 of the *City of Chula Vista MSCP Subarea Plan*.

Special Status Wildlife Species

Special Status Wildlife Found On-Site

- Coastal California gnatcatcher (*Polioptila californica californica*; FT, MSCP Covered) - This bird is a local, uncommon, obligate resident of arid coastal scrub below about 500 meters from eastern Orange and southwestern Riverside counties south through the coastal foothills. Like other species that rely on CSS, the decline of the coastal California gnatcatcher has been instigated by cumulative loss of CSS vegetation to urban and agricultural development. Coastal California gnatcatchers are federally listed as Threatened, and are covered by the *City of Chula Vista MSCP Subarea Plan*. Coastal California gnatcatcher was observed within the CSS of RA2 on multiple occasions. A review of the CNDDB and incidental sightings during field surveys in 2003, 2004, and 2010 revealed at least five sighting locations of coastal California gnatcatcher that represent four territories within the immediate vicinity of the project site and one territory within the debris pick-up Area of RA2-A. TRC also observed coastal California gnatcatcher within the CSS of RA2 during general surveys in 2010. Protocol surveys for coastal California gnatcatcher were conducted in 2011 and confirmed the CSS in RA2 is occupied by one pair of

coastal California gnatcatchers. A lone male was also observed adjacent to RA2 within CSS associated with the Otay River floodplain.

- California horned lark (*Eremophila alpestris actia*, Species of Special Concern [SSC]) - Horned larks were observed at the interface between the non-native grassland and native habitat at the top of the slopes above the Otay River floodplain, between RA1 and RA2-A. California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. This species is found from grasslands along the coast and deserts over a wide range of elevations.

- Cooper's hawk (*Accipiter cooperii*, SSC, MSCP Covered) - Coopers Hawk was observed foraging over the RAs. This species is a breeding resident throughout most of the wooded portion of the state. Its distribution ranges from sea level to above 2,700 meters (0 to 9,000 feet). Dense stands of live oak, riparian deciduous, or other forest habitats near water are used most frequently by this species.

- Northern harrier (*Circus cyaneus*, SSC, MSCP Covered) - Northern harrier was observed foraging over the RAs. The Northern harrier occurs in a range of habitats from annual grassland to lodgepole pine and alpine meadow habitats. They frequent meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; and are seldom found in wooded areas. The California population has decreased in recent decades, but can be locally abundant where suitable habitat remains free of disturbance, especially from intensive agriculture. The breeding population is much reduced, especially in southern coastal district. Destruction of wetland habitat, native grassland, and moist meadows, and burning and plowing of nesting areas during early stages of breeding cycle, is major reasons for the decline.

- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescen*, SSC, MSCP Covered) - Southern California rufous-crowned sparrow was observed foraging within CSS habitat of the RAs. The rufous-crowned sparrow exhibits a distinct preference for rocky hillsides and steep slopes in open grass and CSS in areas ranging from roughly 200 to 4,500 feet in elevation. They also thrive in areas that have recently been burned and sometimes remain in these grassy, successional habitats for a number of years. In general, pairs nest on the ground in rock hollows or under clumps of grass or low brush. This species is tolerant of edge effects, small habitat patches, low shrub volume, and short-term habitat disturbance.

<u>Special Status Wildlife with Potential to Be On-Site or in Adjacent Areas</u>

- Burrowing owl (*Athene cunicularia hypugea*, SSC, MSCP Covered) - Burrowing owl are year-long residents in San Diego County. Typical habitat for this species includes grassland, agricultural fields, sparse shrub lands, as well as developed

areas with sufficient food sources (like dairies). Burrowing owl was not detected during surveys, but suitable nesting habitat exists within the developed portion of RA1 and the bermed area of RA2. Therefore, the species has a moderate potential of occurring on-site.

- Golden eagle (*Aquila chrysaetos*, SSC, MSCP Covered) - Range-wide, golden eagles occur in open country. Within southern California, the species favors grasslands, brushlands, deserts, oak savannas, open coniferous forests and montane valleys. This species was not detected and there are no suitable nesting areas on-site, however suitable foraging habitat occurs within the non-native grassland and CSS. Therefore, the species has a moderate potential of foraging on-site.

- Least Bell's vireo (*Vireo bellii pusillus*; FE, SE, MSCP Covered) - Least Bell's vireos are small, gray, foliage-gleaning passerines with a cylindrical, slightly hooked bill. Least Bell's vireo is found only in riparian woodlands in southern California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside Counties. Least Bell's vireo is restricted to riparian woodland and is most frequent in areas that combine an under story of dense young willows or mulefat with a canopy of tall willows. The least Bell's vireo arrives in San Diego County in late March and early April and leaves for its wintering ground in September. Since the vireos build their nests in dense shrubbery three to four feet above the ground, they require young successional riparian habitat or older habitat with a dense under story. Riparian plant succession is an important factor maintaining vireo habitat. Nests are also often placed along internal or external edges of riparian thickets. Least Bell's vireo is listed as federally Endangered under the Federal Endangered Species Act (FESA) and state Endangered under the California Endangered Species Act (CESA), and is adequately covered in the *City of Chula Vista MSCP Subarea Plan*.

  Least Bell's vireo was observed adjacent to the project site within the Otay River. Two focused surveys for least Bell's vireos were conducted. The surveys revealed four nesting pairs of least Bell's vireos within the Otay River floodplain. All the sightings occur off-site and are associated with willow riparian habitat of the Otay River. Least Bell's vireo is not expected to occur on-site due to lack of suitable habitat, however all suitable habitat adjacent to the site is presumed to be occupied.

- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*, SCC) - The northwestern San Diego pocket mouse inhabits CSS, sage scrub/grassland, and chaparral communities. It inhabits open, sandy areas of both the Upper and Lower Sonoran life-zones of southwestern California and northern Baja California. In San Diego County, this species occurs mainly in arid coastal and desert border areas. No individuals or sign of this species were detected during general biological surveys, but suitable habitat occurs within the CSS of RA2. Therefore, the species has a moderate potential of occurring on-site.

- Orange-throated whiptail (*Aspidocellis hyperythrus beldingi*, SCC, MSCP Covered) - The orange-throated whiptail is uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties, especially in areas with summer morning fog. It inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats. The orange-throated whiptail was not detected during surveys, but suitable habitat is present within the Otay River floodplain within RA2. Therefore, the species has a moderate potential of being on-site.

- Swainson's hawk (*Buteo swainsonii*, SCC, MSCP Covered) - Swainson's hawk is a spring/fall migrant to the area. Typical habitat for this species includes grassland, agricultural fields and sparse shrub lands. This species was not detected on-site, but is known from the Otay River Valley and mesas immediately east of project site. Therefore, the species has a moderate potential of foraging on-site within RA1.

- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*, SCC) - The black-tailed-jackrabbit occupies many diverse habitats including annual grassland, Riversidean sage scrub, alluvial fan sage scrub, Great Basin sagebrush, chaparral, disturbed habitat, and agriculture. This species was not detected, but is known to be relatively common in the area. Therefore, the species has a moderate potential of occurring on-site.

Areas of USFWS Critical Habitat

RA3 and portions of RA2 are within the overlapping USFWS critical habitats for the coastal California gnatcatcher and the Quino checkerspot butterfly. Critical habitat for the Otay Tarplant is adjacent to RA1 to the south. Coastal California gnatcatcher and Otay tarplant are previously discussed above. Provided below is a species account for the Quino checkerspot butterfly.

- Quino checkerspot butterfly (*Euphydryas editha quino*, FE, MSCP Covered) - The Quino checkerspot is a medium sized butterfly with a wingspread of approximately three centimeters. The wings are a patchwork of brown, red, and yellow spots. The Quino checkerspot tends to be darker and redder than other subspecies. Adults emerge in the early to mid-spring, mate and lay eggs. The eggs hatch about a week and a half later and the larvae begin feeding. The larvae may use either *Plantago erecta* or *Castilleja exserta*, both of which may be common in meadows and upland sage scrub/chapparal habitat. These plants are annuals which die back in the summer and the larvae thus have a period of summer diapause (physiological inactivity) during which they do not feed. In the late winter and early spring as the plants appear again, the larvae commence feeding again and then enter a short pupal (chrysalis) phase. As previously stated, field surveys revealed that no Quino checkerspot butterfly individuals, or habitats that could potentially support this species, are present within the project

site. Based on these survey conclusions and the updated assessment of vegetation conducted, suitable habitat for the Quino checkerspot butterfly is not considered to occur on-site.

Direct Impacts

Direct impacts associated with the project would include some degree of grading, excavation, loading, and transport of soil containing lead, lead pellets, and target debris across the site specifically involving RA1 and RA2 berm impacts. In areas containing sensitive resources, specifically the debris pick-up/vacuum areas of RA2 within the MSCP Preserve, hand tools and vacuum equipment will be used to minimize direct impacts. Sensitive habitat within RA2 supports CSS, a special-status vegetation community, in addition to special-status animals, including the federally threatened coastal California gnatcatcher. However, through the use of Mitigation Measures BIO-5 through BIO-9, no direct take of these species will occur.

Direct Impacts to Vegetation

A summary of impacts to vegetation is included as Table 9, Impacts to Vegetation Communities within the Remediation Areas. Two vegetation communities requiring mitigation pursuant to the *City of Chula Vista MSCP Subarea Plan* occur on the project site. These include non-native grassland (Tier III/common uplands habitat) in RA1A, RA1B and the staging and access areas, and CSS (Tier II/uncommon uplands habitat) in RA2A, RA2B and RA2C. Impacts are also proposed to disturbed vegetation/ruderal habitat in the MSCP Preserve; this habitat is classified as a Tier IV/other uplands with no mitigation specified in the *City of Chula Vista MSCP Subarea Plan*. For the purpose of erosion control, all impacted disturbed vegetation/ruderal areas will be revegetated with a native seed mix. No impacts are proposed to tamarisk scrub. A summary of proposed impacts to habitats requiring mitigation, including non-native grassland and CSS, is provided below. A HLIT permit for impacts occurring within designated 100% Conservation Areas will be required from the City of Chula Vista prior to issuance of any Land Development Permits. Impacts within the MSCP Preserve are limited to disturbed vegetation/ruderal and CSS along the berm.

Table 9
Impacts to Vegetation Communities Within the Remediation Areas

Vegetation/ Land Cover (Habitat Type)	Remediation Areas								Impacted Acreage* (All Areas)	Impacted Acreage Within MSCP Preserve
	RA1 A	RA1 B	RA2 A	RA2 B	RA2 C	RA3	Staging and Access Area	Total Acreage		
CSS	-	-	3.7	> 0.1	0.1	-	-	3.9	-	**
Non-native Grassland	0.2	22.9	-	-	-	-	5.7	28.8	28.8	-

Disturbed Vegetation/ Ruderal	-	4.7	0.8	-	> 0.1	1.4	4.1	11.0	11.0	2.2
Tamarisk Scrub	-	-	0.1	-	-	-	-	0.1	-	**-
Developed	-	3.4	-	-	-	-	5.2	8.6	8.6	-
Total	**0.2**	**31.0**	**4.6**	**0.1**	**0.1**	**1.4**	**15.0**	**52.4**	**48.4**	**2.2**

* Areas with impacts due to ground disturbance.**3.90 acres of CSS and 0.13 acres of Tamarisk Scrub occur within RA2 within the MSCP Preserve but are slated for debris pick-up only.

Non-Native Grassland Impacts: Impacts to non-native grassland are temporary and will occur within a Development Area of a Covered Project. Mitigation for the temporary impacts will consist of revegetating at a 1:1 ratio with a native erosion control seed mix. Since no permanent impacts will occur, preserve conveyance obligations in accordance with the *Otay Ranch Resource Management Plan* (RMP) are not applicable to the project; this will be required for the property prior to recordation of a final development map.

CSS Impacts: Due to the presence of sensitive species and the MSCP Preserve, CSS areas within the Otay River floodplain (RA2) are slated for debris pick-up only. The debris pick-up only zone will include using high-vacuum suction equipment and hand tools, such as rakes to loosen top soil and the possible use of powered string trimmers (weed wackers) to allow access to underlying soil. The vacuuming will be conducted in such a manner to prevent permanent disturbance to native CSS shrubs and result in only incidental removal of soil and plants in the herb layer. The vegetation comprising the CSS is fairly mature with most of the species occupying the shrub layer, in addition to a relatively bare herbaceous understory (herb layer) containing few annual non-native grasses and CSS species. The native species in the herb layer were small, scattered, and intermingled with the non-natives, making it impossible to quantify or map them. All defining species of CSS were found in the shrub layer and include broom baccharis, buckwheat, California sagebrush, laurel sumac, and San Diego viguiera. It is these mature CSS shrub species that not only define the CSS habitat, but also provide habitat value for species in the form of dense cover and food sources. One uncommon sensitive plant, San Diego marsh elder, was found in the herb layer and will be avoided.

A maximum of 1,437 cubic yards of soil, up to 3/8 inch deep, will be removed during vacuuming activities throughout the project site. Potential direct impacts from soil removal as could include either removal or inadvertent damage to roots, or removal of small herbaceous plants. Established and mature CSS shrubs, as found within the RAs, typically have root structures between 0.6 feet and 4 feet deep. Because the majority of the root structures occur below a soil depth of 3/8 inches, no significant impacts to the plants through either soil removal or inadvertent damage of roots is expected. In addition, any herbaceous plants removed would be at low densities and

would include non-native species. Overall, the debris pick-up remediation activities will improve the habitat quality by removing hazardous materials, avoiding impacts to CSS shrubs, and resulting in minimal damage to the sparsely vegetated herb layer which contains non-native species. The removal of low densities of native plants in the herb layer is not considered a significant impact to the CSS habitat which is dominated by shrub species. Any temporary removal of vegetation will be mitigated by revegetating at a 1:1 ratio with a native seed mix, as outlined in Mitigation Measure BIO-2. This area of revegetation is located along the berm within RA2. To avoid any potential impacts to CSS shrubs and the San Diego marsh elder, biological monitoring will occur during all activities in RA2, as outlined in Mitigation Measure BIO-8.

Direct Impacts to Special Status Plant Species

One special-status plant was observed during the focused surveys, namely the San Diego marsh elder (CNPS List 2.2). No other special-status plants were observed, including Narrow Endemic Species. Potential direct impacts to special-status plants are therefore limited to the San Diego marsh elder, which was observed within the CSS areas of RA2. Impacts could result from the proposed vacuuming and/or debris pick-up activities proposed in this area. However, through the use of a biological monitor, fencing, and proper use of BMPs, these potential impacts will be reduced to a level below significance (refer to Mitigation Measures BIO-3, BIO-4, and BIO-8).

Direct Impacts to Special Status Wildlife Species

The project contains areas that support or may support special-status animals, including, the coastal California gnatcatcher, least Bell's vireo, burrowing owl, and other species.

The CSS in RA2 is occupied by coastal California gnatcatcher and may support other sensitive species. Remediation activities in CSS habitat will, therefore, be limited to hand collection/vacuuming of debris outside the breeding season. As required for Mitigation Measure BIO-7, pre-construction surveys will be conducted to reaffirm the presence and extent of occupied habitat and establish avoidance buffers if the species is present. Direct impacts to coastal California gnatcatcher from either harm to individual birds or their habitat are considered less than significant since only minor disturbance to habitat will occur and no work will occur in occupied habitat within the MSCP Preserve (RA2 and RA3, or construction phases 4 to 6) during the nesting season.

No suitable habitat for least Bell's vireo exists within the project RA's. As a result, direct impacts to least Bell's vireo from either harm to individual birds or their habitat are not expected due to the absence of suitable habitat for this species within the proposed limits of remediation.

Direct impacts to burrowing owl are not anticipated as there are no known observations of the species on-site, although the project site does support suitable habitat.

Therefore, as a Covered Species under the *City of Chula Vista MSCP Subarea Plan*, additional surveys are required prior to construction to verify a lack of impacts (refer to Mitigation Measure BIO-6).

Habitats in the existing non-native grassland areas on-site are important for foraging by several sensitive species including California horned-lark, Cooper's hawk, Northern harrier, golden eagle, Swainson's hawk, and San Diego black-tailed jackrabbit. The proposed project does not include permanent reduction of non-native grasslands, and impacts on these species as a result of the project are considered to be minimal due to the temporary nature of the disturbance to habitats. Foraging habitat is expected to develop within one growing season after reseeding of the site is implemented (refer to Mitigation Measure BIO-1). Potential impacts to nesting raptors and/or migratory birds protected under the Migratory Bird Treaty Act (MBTA) will also be avoided (refer to Mitigation Measure BIO-5).

Potentially significant impacts to sensitive species could occur unless otherwise mitigated. However, impacts to special status wildlife would be considered less than significant through the use of prescribed mitigation measures.

Indirect Impacts

Indirect impacts, including staging, will be limited to the construction (remediation) phase of the project. The project will not include indirect impacts outside of the construction (remediation) period, due to the fact that following the remediation activities the project site will be restored to the existing conditions and use. Any impacts will be considered temporary and indirect for this reason.

Indirect Impacts to Vegetation

Indirect impacts to vegetation communities would result primarily from adverse "edge effects." During remediation of the project, edge effects may include dust impacts and the potential for introduction of invasive exotic species that could reduce the vitality in the short term. No long-term impacts are projected by the remediation efforts; the remediation is expected to benefit the site by removing contaminants. Indirect impacts to vegetation communities are considered significant, but mitigable through implementation of BMPs such as dust control measures (refer to Mitigation Measure BIO-4).

Removal of a maximum of 1,437 cubic yards of soil up to 3/8 inch deep is expected during vacuuming activities within RA2. Potential indirect impacts to vegetation from soil removal could include depletion of the native seed bank, removing essential soil microorganisms/mycorrhizae, and exposing roots making them more susceptible to effects such as the sun (drying out the roots) and herbivory. However, removal of up to 3/8 inch of soil is not expected to result in impacts to the established habitat observed in the RAs since seed banks, microorganisms/mycorrhizae and roots are not limited to the top 3/8 inch of soil and would therefore, not be depleted. Established and mature CSS

shrubs typically have roots between 0.6 feet and 4 feet deep and therefore, are not expected to be significantly impacted by exposure up to 3/8 inch deep. To avoid any potential impacts, biological monitoring will occur during all activities in RA2, as outlined in Mitigation Measure BIO-8.

Indirect Impacts to Special Status Plants

Potential indirect impacts to sensitive plant species, specifically the Otay tarplant occurring adjacent to the south, is limited to dust impacts and the potential for introduction of invasive exotic species that could reduce the vitality of the local populations. These impacts are considered to be significant, but would be temporary and mitigated through implementation of dust control measures and the use of a native plant seed mix for revegetating following completion of remediation activities (refer to Mitigation Measures BIO-1 and BIO-4).

Indirect Impacts to Special Status Wildlife

Short-term indirect impacts to special status wildlife will include short-term human activity in the floodplain and vehicle noise impacts during debris removal. Any adjacent lighting during the remediation process could also impact habitat occupied by sensitive species. However, no lighting is proposed during the remediation process. Species potentially affected by such activities include, but are not limited to, coastal California gnatcatchers located immediately within and adjacent to the vacuuming/debris pick-up area of RA2 and least Bell's vireo near RA2 and RA3. Noise can impact these species in many ways by inhibiting audible communication between potential mates and between parents and offspring. Indirect noise impacts to listed bird species may have additional deleterious effects if earth-moving activities are conducted adjacent to the nesting sites of sensitive species during the nesting season.

Construction activities during phases 4 to 6 within the MSCP Preserve (RA2 and RA3) will occur outside the nesting season of coastal California gnatcatchers (February 15 to August 15) and least Bell's vireo (March 15 to September 15). However, construction in areas outside the MSCP Preserve (RA1) will occur during the nesting season (phases 1 to 3) and could potentially create indirect noise impacts to coastal California gnatcatchers and/or least Bell's vireo within the adjacent MSCP Preserve areas to the north. Suitable habitat for coastal California gnatcatcher or least Bell's vireo was not identified in the MSCP Preserve located south of the Project Site; therefore indirect noise impacts are not anticipated in that area. Noise modeling was conducted to determine ambient noise levels in the MSCP Preserve, and to identify potential noise impacts to the MSCP Preserve during the nesting season from construction of phases 1 to 3.[2] According to the modeling results, ambient L_{eq} noise levels in the MSCP Preserve were found to be relatively high at between 57 dBA and 69 dBA. The sources of this noise include heavy trucks from the Vulcan Materials Company Quarry, vehicular traffic on Heritage Road and Main Street, amplified music and other sources from the

[2] Refer to the *Noise Assessment*, dated February 20, 2012, prepared by TRC, is on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013.

Cricket Wireless Amphitheater and Knott's Soak City USA, and aircraft from the Brown Field Municipal Airport. Sounds associated with the temporary construction will be similar in nature to those that currently exist, and will be variable throughout the MSCP Preserve depending on the location of construction equipment at any given time. Based on the noise modeling, mitigation is required to prevent noise levels during construction in phases 1 to 3 from exceeding the 60 dBA L_{eq}-h or ambient condition, whichever is greater, in the MSCP Preserve. The thresholds for noise impact at each monitoring location in the MSCP Preserve are shown in Table 10, Ambient Noise Level Data and Thresholds (dBA) – MSCP Preserve, based on the measured ambient L_{eq} noise levels. Monitoring locations 1 to 7 are located along the MSCP Preserve boundary to the north, and monitoring locations 8 to 10 are located along the MSCP Preserve boundary to the south.

Table 10
Ambient Noise Level Data and Thresholds (dBA) – MSCP Preserve

Monitoring Location	Measured Ambient L_{eq}	Threshold L_{eq} for noise impact
1 - Intersection of Main Street and Heritage Road	61	61
2 – Across from the intersection of Entertainment Circle and Heritage Road	69	69
3 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 2)	63	63
4 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 3)	60	60
5 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 4)	58	60
6 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 5)	63	63
7 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 6)	57	60
8 – Adjacent to project site entrance and Otay Skeet and Trap Shooting Range	60	60
9 – Dirt road adjacent to project site entrance (east of location 8)	65	65
10 – Dirt road adjacent to project site entrance near southeast project boundary (east of location 9)	59	60

The mitigation for the northern MSCP Preserve consists of a noise barrier wall along the berm area at the edge of the MSCP Preserve (Noise Mitigation Measure 1), in addition to revised Limits of Work (Noise Mitigation Measure 2). The noise barrier wall will allow

construction equipment to operate within the Limit of Work area described below without exceeding the 60 dBA or ambient noise levels at the northern MSCP Preserve boundary during the nesting season, thereby reducing noise impacts to less than significant. The noise barrier wall will be 300 feet long and 10 feet high and, along with the noise reductions provided by the existing earthern berm, will allow for construction to occur in phases 1 to 3 within RA1 during the nesting season without impacting noise levels in the MSCP Preserve. In addition to the noise barrier wall, pre-construction surveys will be conducted to reaffirm the presence and extent of occupied habitat in the northern MSCP Preserve and establish avoidance buffers if the species is present (refer to Mitigation Measures BIO-7a to BIO-7c). With implementation of these mitigation measures, indirect impacts to coastal California gnatcatcher or least Bell's vireo are not considered significant.

Remediation activities beyond the Limit of Work within RA1 will not occur during the nesting season due to potential indirect impacts. The northernmost boundary for construction (Limit of Work) during the nesting season is shown as a light blue line on Figures 7 to 9 (phases 1 to 3, respectively) of the Noise Assessment report (TRC, 2012), also provided in Appendix A of the Biological Assessment Report. These boundaries will be included on the grading plans and identified in the field during construction with fencing. The location of the Limit of Work is also summarized below for each phase:

- Phase 1: The northern extent of where construction equipment may operate with the noise barrier in place, while remaining at or below the impact thresholds provided in Tables 4 and 5 of the Biology Assessment Report, extends from between 40 feet and 330 feet from the MSCP Preserve boundary (see Figure 7 in Appendix A, of the Biological Assessment Report).
- Phase 2: The northern extent of where construction equipment may operate with the noise barrier in place, while remaining at or below the impact thresholds provided in Tables 4 and 5 of the Biology Assessment Report, extends from between 100 feet and 400 feet from the MSCP Preserve boundary (see Figure 8 in Appendix A, of the Biological Assessment Report).
- Phase 3: The northern extent of where construction equipment may operate with the noise barrier in place, while remaining at or below the impact thresholds provided in Tables 4 and 5 of this Biological Assessment Report, extends from between 40 feet and 330 feet from the MSCP Preserve boundary (see Figure 9 in Appendix A, of the Biological Assessment Report).

Since the noise barrier wall will likely be constructed during the nesting season for coastal California gnatcatcher and least Bell's vireo, the Noise Assessment report also conducted an analysis of potential noise impacts associated with installation of the wall. Augers are required to create holes in the ground for the barrier posts. The holes are dug with a two man hand auger equipped with a five horsepower engine, and each post requires less than 10 minutes of augering. A maximum sound level of 68 dBA at 50 feet was calculated for the auger. A portable V-shaped barrier would therefore be used to shield the MSCP Preserve from the auger. This portable barrier would be eight feet

high and four feet long on each side, and would reduce noise levels by about 20 dBA behind the barrier, with noise levels of 60 dBA or less occurring within the MSCP Preserve. Since each post requires less than 10 minutes of auguring, no one location in the MSCP Preserve would experience this noise level for an extended period of time, and noise barrier installation noise levels would be below the 60 dBA Leq (1) criterion. Therefore, no noise impacts on the MSCP Preserve are anticipated during the noise barrier wall installation (TRC, 2012).

Mitigation Measures:

BIO-1 Erosion Control Revegetation - Impacts to non-native grassland habitat and disturbed vegetation/ruderal outside the MSCP Preserve will be mitigated at a 1:1 ratio by reseeding with a standard erosion control seed mix after remediation activities are completed. The revegetation plant palette for the erosion control mix is summarized in Table 11, Erosion Control Revegetation Plant Palette and shall be included in the Erosion Controls notes on all applicable Land Development Permits, including clearing or grubbing and grading. The erosion control seed mix consists of plant species native to San Diego County that are listed as acceptable in all fuel modification zones in all locations under Appendix K of the *City of Chula Vista MSCP Subarea Plan* (refer to Table 11). The mix is designed to germinate quickly and provide vegetative cover for disturbed areas without irrigation. Expected establishment is 45 to 90 days to achieve 80 percent cover after emergence.

Table 11
Erosion Control Revegetation Plant Palette

Species Scientific Name	Common Name	Application Rate (Pounds per Acre)
Eschscholzia calfornica	California poppy	10
Heliotropium currasavicum	Salt Heliotrope	10
Lotus scoparius	Deerweed	10
Total Pounds per Acre		**30**

BIO-2 CSS Restoration Plan - Prior to the issuance of any land development permits (including clearing and grubbing or grading permits) the Project Applicant shall prepare a restoration plan to restore 2.2 acres of disturbed vegetation/ruderal with CSS. The CSS restoration plan shall be prepared by a City-approved biologist and to the satisfaction of the Development Services Director (or their designee). The restoration plan shall include, at

a minimum, an implementation strategy, appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project Applicant shall also be required to implement the revegetation plan subject to the oversight and approval of the Development Services Direction (or their designee).

BIO-3 Fencing - Prior to issuance of Land Development Permits, including clearing or grubbing and grading, the project Applicant shall install fencing in accordance with Chula Vista Municipal Code (CVMC) 17.35.030. Prominently colored, well-installed fencing and signage shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. In addition, fencing shall also be in place to delineate the modified limits of work associated with RA1 (construction phases 1-3) during the nesting season for of coastal California gnatcatchers (February 15 to August 15) and least Bell's vireo (March 15 to September 15). The modified Limits of Work for phases 1 - 3 are illustrated on Figures 7 – 9 of the Noise Resources Report. All temporary fencing shall be shown on grading plans and shall remain in place during all construction activities. Prior to release of any required grading and/or improvement bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.

BIO-4 Construction BMPs - Appropriate construction BMPs must be used during construction to ensure avoidance of any indirect temporary impacts to adjacent special status habitats. Examples of BMPs that may be used, if necessary, include but are not limited to those outlined in the project SWPPP, such as dust control measures (WE-1, WM-3, EC-1), training all on-site personnel on the proper use of chemicals and material storage (WM-1, WM-2), spill prevention and control (NS-10, WM-4), waste management (WM-5, WM-7, WM-8, and WM-9), and erosion control devices (EC-3, EC-6, SE-1, SE-5, TC-1, SE-7, EC-15, SE-5, EC-4).

BIO-5 Migratory Birds - To avoid any direct impacts to raptors and/or any migratory birds protected under the MBTA, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the nesting season for these species (January 15 to August 31). If removal of habitat on the proposed area of disturbance must occur during the nesting season, the project Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, the results of which must be submitted to the City for review and approval prior to initiating any

construction activities. If nesting birds are detected, a letter report or mitigation plan as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The County's Mitigation Monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

The plan will include measures to restrict construction noise levels to below 60 dB L_{eq} hourly or the existing ambient levels, at the location of any active nest sites for raptors, coastal California gnatcatcher, or least Bell's vireo.

BIO-6 Burrowing Owls - Prior to issuance of any land development permits (including clearing and grubbing or grading permits); the project Applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing or grading activities. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation plan subject to the review and approval by the Wildlife Agencies and City including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

BIO-7a Coastal California Gnatcatcher and Least Bell's Vireo - No remediation activities shall occur within the MSCP Preserve (RA2 and RA3; construction phases 4 to 6) during the nesting season for coastal California gnatcatcher (February 15 to August 15) and least Bell's vireo (March 15 to September 15).

The northern limits of work within RA1 (construction phases 1-3) shall be reduced during the nesting season for coastal California gnatcatchers (February 15 to August 15) and least Bell's vireo (March 15 to September 15) to avoid potential indirect noise impacts. The modified Limits of Work are depicted on Figures 7 to 9 of the *Noise Assessment* report and shall be shown on all grading plans and identified in the field with fencing consistent with Mitigation Measure BIO-3.

BIO-7b Coastal California Gnatcatcher and Least Bell's Vireo - For any work proposed adjacent to the MSCP Preserve in the northern and southern portion of the Project site during the coastal California gnatcatcher and least Bell's vireo nesting season, prior to issuance of any land development permits, including clearing, grubbing, grading permits adjacent to the MSCP Preserve, a pre-construction survey shall be performed in order to determine the presence/absence of these species

and extent of any occupied habitat. The pre-construction survey area for the coastal California gnatcatcher and least Bell's vireo shall encompass all suitable habitat within the project work zone, as well as a 300-foot buffer.

The pre-construction survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the *City of Chula Vista MSCP Subarea Plan*. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If the coastal California gnatcatcher or least Bell's vireo is detected, a minimum of 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within while the occupied habitat from February 15 to August 15 for the coastal California gnatcatchers and from march 15 to September 15 for the least Bell's vireo and on-site noise reduction techniques have been incorporated, as appropriate. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on site-specific conditions. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report..

BIO-7c Coastal California Gnatcatcher and Least Bell's Vireo - Prior to initiating any remediation activities within RA1 (construction phases 1-3), the Applicant shall construct a temporary noise barrier in one area of the MSCP Preserve to reduce the potential for indirect noise impacts. The location of the temporary noise barrier is depicted on Figures 7 to 9 of the *Noise Assessment* report (TRC, 2012), and shall be shown on all grading plans. The noise barrier will consist of a wall approximately 300 feet long and 10 feet high, construction of a Sound Seal BBC-EXT-R or similar material with the following specifications or similar, taken from the *Noise Assessment* report:

- One pound reinforced mass loaded vinyl with heavy duty VCP faced quilted fiberglass;
- Velcro seam overlaps to connect blankets;
- STC 26 rating (transmission loss value); and
- NRC .70 (sound absorption value).

BIO-8 Biological Monitor Approvals - Prior to issuance of any land development permits, including clearing or grubbing and grading and/or construction permits, the Project Applicant shall provide written confirmation that a City-approved biological monitor has been retained and shall be on-site during

clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the *City of Chula Vista MSCP Subarea Plan* and/or permits issued by any other agencies having jurisdictional authority over the project.

Before construction activities occur in areas containing sensitive biological resources, all workers shall be educated by a City-approved biologist to recognize and avoid those areas, which have been marked as sensitive biological resources.

BIO-9 HLIT Permit - Prior to the issuance of any land development permits including clearing, grubbing and/or grading, the Applicant shall be required to obtain a HLIT Permit pursuant to Section 17.35 of the City of Chula Vista Municipal Code. Findings for issuance of a HLIT permit are provided in the *Biological Resources Report* (TRC, 2012) based on Section 17.35.080 of the City of Chula Vista Municipal Code.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less than Significant with Mitigation Incorporated: The *Biological Resources Assessment* did not identify riparian forest, oak riparian forest, riparian woodland, or riparian scrub habitat. As described in Response IV(a), the project site contains CSS, which is a special status vegetation community that occurs within RA2 and is considered a special status habitat by the resource agencies and is designated a Tier II habitat in the *City of Chula Vista MSCP Subarea Plan*. In addition, there are approximately 28.8 acres of non-native grassland on the project site within RA1, which is designated a Tier III habitat by the *City of Chula Vista MSCP Subarea Plan* because it often supports native wildlife species. However, with the implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-8, and BIO-9, all direct and indirect impacts to sensitive vegetation communities would be reduced to a less than significant level.

Mitigation Measures: Refer to Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-8, and BIO-9.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less than Significant with Mitigation Incorporated:

Drainages

No United States Army Corps of Engineers (ACOE)/ RWQCB jurisdictional drainages occur within the RAs; areas subject to ACOE/RWQCB jurisdiction near the project are associated with the Otay River channel areas outside of the RAs. CDFG jurisdiction does occur within two RAs, extending into the majority of RA2 and RA3. These areas are outside of the active channel areas and are associated with the Otay River 100-year floodplain. The floodplain topography is relatively flat and there are no channels or other field indicators of water flow that would be subject to ACOE/RWQCB jurisdiction. The elevation of the floodplain is also slightly higher than the Otay River channel, which therefore isolates the hydrology of this area to large flood events and explains the lack of ACOE/RWQCB jurisdiction. The floodplain area is therefore subject to CDFG jurisdiction only.

Wetlands

No ACOE jurisdictional wetlands occur within the RAs. Patches of wetland indicator vegetation were observed within RA2 only, including marsh elder, mulefat (*Baccharis salicifolia*), and tamarisk (*Tamarix* spp.). The marsh elder and mulefat were scattered within the CSS areas and as such were not mapped as separate vegetation communities, whilst the tamarisk occurred in a small stand within RA2A which was dominated by this species and therefore mapped as a Tamarisk scrub vegetation community. Based on the absence of wetland hydrology and hydric soils, none of the areas vegetated with wetland indicator species were classified as ACOE jurisdictional wetlands. CDFG do not have a definition for wetlands, and they do not require different permits or mitigation for wetland habitats. CDFG regulates streambeds from top-of-bank to top-of-bank, in addition to lakebeds; any ACOE defined wetlands within those areas would therefore be considered CDFG jurisdictional.

Vernal Pools

No vernal pools or depressions that would function as a vernal pool were identified on-site. Depressions observed during the surveys supported no indicator plant or wildlife

species of vernal pools, and none of the depressions exhibited vernal pool characteristics.

Wetlands Protection Plan (WPP) Habitats

No WPP protected habitats occur within the RAs. Patches of wetland indicator vegetation were observed within RA2 only, including marsh elder, mulefat, and tamarisk. The marsh elder and mulefat were scattered within the CSS areas and as such were not mapped as separate vegetation communities, whilst the tamarisk occurred in a small stand within RA2-A which was dominated by this species and therefore mapped as a Tamarisk scrub vegetation community. It should be noted that because the marsh elder is a sensitive plant species, the locations were mapped as part of the special-status plant survey. The hydrophytic vegetation was not part of any wetland vegetation communities identified in Table 5-6 of the *City of Chula Vista MSCP Subarea Plan* and further defined in Appendix B of the *City of Chula Vista MSCP Subarea Plan*. Based on incidental observations and previous mapping, vegetation within the active channel areas of the Otay River outside the RAs includes tamarisk intermingled with native riparian species such as willows and mulefat. The tamarisk and other scattered patches of wetland indicator species mapped within RA2-A are outside the active channel areas within the 100-year floodplain, and do not support willows or other typical wetland and riparian species assemblages as outlined in the *City of Chula Vista MSCP Subarea Plan* Wetland Vegetation Communities definitions. As such, the CSS and tamarisk scrub areas within RA2-A supporting patches of wetland indicator species are not considered WPP protected habitats, including disturbed wetlands. The *City of Chula Vista MSCP Subarea Plan* Wetland Vegetation Communities definitions are provided below in the *Biological Resources Assessment*.

Direct Impacts

No direct impacts to protected waters, wetlands, or vernal pools will result from the proposed remediation project. Formal jurisdictional delineations show that the RAs are all outside the limits of ACOE and RWQCB jurisdictional Waters of the United States (WUS) that are limited to the Otay River. Remediation activities proposed with RA2 are within CDFG jurisdiction. However, this area is proposed for debris pick-up only with minimal incidental removal of vegetation in the herb layer, which will not substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of the river. Therefore, no Streambed Alteration Agreement is anticipated to be required from CDFG. Furthermore, no ACOE wetlands, vernal pools, or WPP protected habitats exist on the project site, including but not limited to disturbed wetlands, therefore no impacts will occur to any of these resources.

Indirect Impacts

The project does not support vernal pools or ACOE wetlands, or any WPP protected habitats as defined in the *City of Chula Vista MSCP Subarea Plan*, therefore no impacts will occur to these resources. The project is adjacent to ACOE/RWQCB jurisdictional

waters, and a portion of RA2 is within the CDFG jurisdictional floodplain. Indirect, adverse edge effects to jurisdictional waters as a result of the project include potential runoff, sedimentation, erosion, and invasive exotics introduction. These could impact jurisdictional waters in the short term during remediation activities. Indirect impacts to jurisdictional waters are considered significant but mitigable through implementation of standard construction BMPs such as those outlined in the SWPPP for the project. Examples of BMPs in the SWPPP that would avoid impacts to jurisdictional waters include, but are not limited, to the use of silt fencing (SE-1), straw wattles (SE-5), rattle plates at ingress/egress points (TC-1), water trucks (WE-1), spill kits (NS-10), and proper material storage (WM-1) (refer to Mitigation Measure BIO-10).

Mitigation Measures:

BIO-10 SWPPP - The project SWPPP shall be implemented for the duration of the project to control storm water runoff such that erosion, sedimentation, pollution, etc. are minimized (TRC, 2011c). Measures outlined in the plan include the use of silt fencing and straw wattles along disturbed areas during and after grading and around soil stockpiles (SE-1 and SE-5, respectively), and watering trucks during excavation and hauling activities to reduce windborne dust (WE-1). During remediation activities, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect any downstream special status vegetation from being inundated with sediment laden run-off.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Based on a wildlife corridor study conducted in conjunction with the *Otay Ranch General Development Plan Draft EIR,* the project is within the Otay Valley corridor and is subject to certain planning considerations, including the use of bridge-type design road crossings to allow unhindered passage of wildlife. Regional wildlife movement would most likely be concentrated within the Otay River and its associated floodplain. However, the project does not propose any development and consequently will not have a significant effect on the Otay Valley wildlife corridor.

e) Conflict with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional or state habitat

conservation plan or any other local policies or ordinances that protect biological resources?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less than Significant with Mitigation Incorporated: The project is located within the Otay Ranch General Development Plan (GDP) Planning Area; a Covered Project under the *City of Chula Vista MSCP Subarea Plan*. The *City of Chula Vista MSCP Subarea Plan* designates the majority of the project site as a Development Area within a Covered Project (Planned Active Recreation). The northern and southern portions of the Project site are outside the Planned Active Recreation area and are designated as "100% Conservation Area of the Habitat Preserve" (MSCP Preserve). The northern portion of the Project site within the MSCP Preserve is located in the Otay River floodplain, and includes RA2 and RA3. The southern portion of the Project site within the MSCP Preserve is outside of the area proposed for remediation activities. Those portions of the project within the MSCP Preserve are subject to the City's HLIT Ordinance (Ordinance No. 3004). The project is a remediation project and would not involve new development.

For projects located in Otay Ranch, the *City of Chula Vista MSCP Subarea Plan* relies on the preserve design and policies contained in the Otay Ranch Resource Management Plan (RMP) as the framework for conservation and management of biological resources within Otay Ranch Preserve. In accordance with the Otay Ranch RMP, preserve conveyance obligations are determined by the City of Chula Vista based on the project's final design and secured by the City of Chula Vista prior to the recordation of the project's final map. The project does not include development activities that require the preparation or recordation of a final map, and therefore the project is not subject to the conveyance requirements.

The project includes temporary impacts to disturbed vegetation/ruderal habitat (dominated by non-native species) within the MSCP Preserve. These impacts will be mitigated consistent with the *City of Chula Vista MSCP Subarea Plan* by revegetating the area with CSS species at a 1:1 ratio pursuant to a CSS Restoration Plan that will be prepared for the project (Mitigation Measure BIO-2). Temporary impacts to non-native grassland and disturbed vegetation/ruderal habitat outside the MSCP Preserve will also be restored with a native seed mix at a 1:1 ratio (Mitigation Measure BIO-1).

Mitigation of temporary impacts to the non-native grassland and disturbed vegetation/ruderal both within and outside the MSCP Preserve are expected to benefit native biological resources in the area through removal of non-native plant species, replanting with native plant species, and removal of contaminants such as lead, PAHs and perchlorate. This is consistent with the goals of the Otay Ranch RMP, which

includes preservation and enhancement of biological resources, maintaining biological diversity, and promoting the survival and recovery of native species and habitats (Section 7.6.1, *City of Chula Vista MSCP Subarea Plan*).

Impacts to protected species within the MSCP Preserve will also be avoided and mitigated consistent with the *City of Chula Vista MSCP Subarea Plan*. This includes conducting pre-construction surveys for migratory nesting birds (Mitigation Measure BIO-5), conducting pre-construction surveys for burrowing owls (*Athene cunicularia hypugea*) (Mitigation Measure BIO-6), avoiding construction within the MSCP Preserve during the nesting season for coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo bellii pusillus*) (Mitigation Measure BIO-7a), restricting the limits of work adjacent to the MSCP Preserve during the breeding season to avoid indirect noise impacts (Mitigation Measure BIO-7a), conducting pre-construction surveys for coastal California gnatcatcher and least Bell's vireo (Mitigation Measure BIO-7b), installation of a noise barrier to reduce noise impacts to 60 dBA or ambient noise levels, whichever is greatest (Mitigation Measure BIO-7c), and biological monitoring to avoid impacts to sensitive biological resources (Mitigation Measure BIO-8).

In addition, remediation activities are limited to the areas of contamination only within the project site boundary, and grading is limited to areas mapped as disturbed vegetation/ruderal and non-native grassland outside the MSCP Preserve. The project has been designed to minimize impacts to Sensitive Biological Resources, including avoiding grading within the MSCP Preserve, avoiding work in the MSCP Preserve during the nesting season for sensitive bird species, modifying work limits adjacent to the MSCP Preserve during the nesting season, and installing a temporary noise barrier wall to avoid indirect noise impacts. Mitigation measures have also been developed to ensure that impacts to sensitive biological resources are less than significant.

Based on the above, the activities associated with this project would not conflict with the goals, objectives and policies of *the City of Chula Vista MSCP Subarea Plan*, and would be consistent with the preservation and enhancement goals of the Otay Ranch RMP. Therefore, impacts will be less than significant with implementation of mitigation.

Mitigation Measures: Refer to Mitigation Measures BIO-1, BIO-2, BIO-6, BIO-7 (a-c), and BIO-8.

V. CULTURAL RESOURCES -- Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: Based on an analysis of records and a survey of the property by David M. Smith in 2005, it has been determined that there are two historical resources within the project site. These resources include the Bird Ranch (CA-SDI-11386H) and site CA-SDI-10452, which contained recorded chopping tools, scrapers, utilized flakes, cores, and manos over an area of 1 kilometer by 0.3 kilometer in size. An historical resources report entitled, *Otay Mesa Cultural Resources Letter Summary*, dated July 20, 2005, and prepared by TRC, evaluated the significance of the historical resources based on a review of historical records including the report prepared by Brian Mooney Associates, entitled, *Evaluation of a Prehistoric Resource Processing Site (CA-SDI-10,452), Historic Bird Ranch (CA-SDI-11,386H), and Water Conveyance System (CA-SDI-11,383H) for the Otay Valley Water Reclamation Plan (STP-1)*, dated 1992 and an architectural evaluation. The CA-SDI-11386H site was evaluated by Brian Mooney Associates and a single structure, a quail brooder, was found eligible for listing in the California Register of Historic Properties because of its unique design. Based on the results of this study, it has been determined that the historic resource is significant pursuant to the CEQA Guidelines, Section 15064.5. However, it has since been determined that this site is not located within the footprint of the project area. The CA-SDI-10452 site was determined to be ineligible under both CEQA and the National Historic Preservation Act (NHPA) because of its highly disturbed context. However, it should be noted that the proposed project will not impact these resources since they are outside of the current impact footprint. Regardless, Mitigation Measure CR-2 is included in order to ensure impacts relating to historical resources remain below a level of significance.

Mitigation Measure: Refer to Mitigation Measure CR-2.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?

☐	Potentially Significant Impact	☐	Less than Significant Impact
☒	Less Than Significant With Mitigation Incorporated	☐	No Impact

Discussion/Explanation:

Less Than Significant Impact With Mitigation Incorporated: The project site has been surveyed by a County approved archaeologist David M. Smith in 2005 and it has been determined that there are seven archaeological resources present. These resources are identified as CA-SDI--10452H, CA-SDI-11386, CA-SDI-12291, CA-SDI-12293, CA-SDI-14178, and CA-SDI-14179. Of these six sites, CA-SDI-10452, CA-SDI--10452H and CA-SDI-11386 have been evaluated pursuant to Section 15064.5 of the CEQA Guidelines and Section 106 of the National Historic Preservation Act (NHPA). As previously described above, historic resource CA-SDI-11386H is significant pursuant to the CEQA Guidelines, Section 15064.5 and site CA-SDI-10452 was determined to be

ineligible under both CEQA and NHPA because of its highly disturbed context. Site SDI-10452H was discovered during monitoring during trenching in the area of the skeet range, which included buried historic trash deposit. A testing and evaluation program was implemented and it was determined to be ineligible because of its lack of density and diversity. While the remaining four sites including, CA-SDI-12291, CA-SDI-12293, and CA-SDI-14178, and CA-SDI-14179 have not been tested pursuant to CEQA, they are not in the area that would be impacted by the remediation activities. Regardless, mitigation measures are included in order to ensure impacts to archaeological resources remain below a level of significance.

Mitigation Measures:

The following mitigation measures shall be included as notes on the grading plans and implemented throughout project implementation.

CR-1 Prior to issuance of land development permits, including clearing or grubbing and grading permits, the applicant shall provide confirmation and incorporate into grading plans, to the satisfaction of the Development Services Director (or their designee), that an archeological monitor will be present during all cutting of previously undisturbed soil.

CR-2 During the initial grading of previously undisturbed soils within the project area, prehistoric and historic resources may be encountered. In the event that the monitor identifies a potentially significant site, the archaeological monitor shall secure the discovery site from further impacts by delineating the site with staking and flagging, and by diverting grading equipment away from the archaeological site. Following notification to the City of Chula Vista, the archaeological monitor shall conduct investigations as necessary to determine if the discovery is significant under the criteria listed in CEQA and the environmental guidelines of the City of Chula Vista. If the discovery is determined to be not significant, grading operations may resume and the archaeological monitor shall summarize the findings in a letter report to the City following the completion of mass grading activities. The letter report shall describe the results of the on-site archeological monitoring, each archaeological site observed, the scope of testing conducted, results of laboratory analysis (if applicable), and conclusions. Any artifacts recovered during the evaluation shall be curated at a curation facility approved by the City.

- For those prehistoric/historic resources that are determined to be significant, alternate means of achieving mitigation shall be pursued. In general, these forms of mitigation include: 1) site avoidance by preservation of the site in a natural state in open space or in open space easements, 2) site avoidance by preservation through capping the site and placing landscaping on top of the fill, 3) data recovery through implementation of an excavation and analysis program, or 4) a

combination of one or more of the above measures. Procedures for implementing the alternative forms of mitigation described herein are further detailed in the Mitigation Monitoring and Reporting Program adopted as part of the Otay Ranch General Development Program EIR, EIR 90-01.

- For those sites that are found to be significant resources and for which avoidance and preservation is not feasible or appropriate, the Applicant shall prepare a Data Recovery Plan. The plan will, at a minimum, include the following: 1) a statement of why data recovery is appropriate as a mitigating measure, 2) a research plan that explicitly provides the research questions that can reasonably be expected to be addressed by excavation and analysis of the site, 3) a statement of the types and kinds of data that can reasonably be expected to exist at the site and how these data will be used to answer important research questions, 4) a step-by-step discussion of field and laboratory methods to be employed, and 5) provisions for curation and storage of the artifacts, notes, and photographs will be stated. In cases involving historic resources; however, archival research and historical documentation shall be used to augment field-testing programs.

- Grading operations within the affected area may resume once the site has been fully evaluated and mitigated to the satisfaction of the Development Services Director (or their designee). All significant artifacts collected during the implementation of the Data Recovery Plan shall be curated at a facility approved by the City.

CR-3 Following the completion of mass grading operations, the Applicant shall prepare a plan for the onsite presentation and interpretation of the results of the archaeological studies at an interpretive center or museum. This could be accomplished through adaptive reuse of one of the historic structures within the project or through exhibition within future community centers and/or multi-purpose buildings. It is expected that this interpretive center will only be for temporary curation of those materials being actively used for interpretation and display, and that permanent curation of artifacts and data will be at a regional repository when one is established. All significant artifacts collected during the implementation of the Data Recovery Plan shall be curated at a facility approved by the City.

c) Directly or indirectly destroy a unique geologic feature?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation: San Diego County has a variety of geologic environments and geologic processes which generally occur in other parts of the state, country, and the world. However, some features stand out as being unique in one way or another within the boundaries of the County.

No Impact: The site does not contain any unique geologic features that have been listed in the County's *Guidelines for Determining Significance for Unique Geology Resources* nor does the site support any known geologic characteristics that have the potential to support unique geologic features.

d) Directly or indirectly destroy a unique paleontological resource or site?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: A record search was conducted by staff at the San Diego Natural History Museum (SDNHM) to determine whether fossiliferous rock units are present on the property (T. Demere, March 7, 2005). The results of the record search show that two paleontologically sensitive formations underlie the project area. The younger of the two is the Pliocene San Diego Formation. This two to four million year old marine formation has produced a wide variety of plant and animal fossil specimens from six recorded localities within one-mile of the project area. These fossils consist of plant remains of oak, sycamore, avocado, and willow trees, and animal remains of crabs, snails, clams, rays, fish and sea birds. The older of the two formations, the Oligocene Otay Formation, has produced fossils from two recorded localities within one-mile of the project area. This 28 million year old terrestrial formation has produced significant artiodactyl and rodent fossils. SDNHM characterizes these two fossiliferous rock formations as highly sensitive and recommends a complete paleontological resource mitigation program.

However, the project will not result in a cumulative impact to paleontological resources since there are no cumulative projects within the vicinity. In addition, other projects that require grading in sensitive paleontological resource areas will be required to have the appropriate level of paleontological monitoring and resource recovery. Finally, other projects that propose any amount of significant grading would be subject to the requirements for paleontological monitoring as required pursuant to the County's Grading Ordinance. Therefore, the project would not result in a significant direct, indirect, or cumulatively significant loss of paleontological resources.

Mitigation Measures:

The following mitigation measures shall be included as notes on the grading plans and implemented throughout project implementation..

CR-4 Prior to the issuance of grading permits for the project, the Applicant shall confirm to the City that a qualified paleontologist has been retained to carry out an appropriate mitigation program. (A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques). A pre-grade meeting shall be held among the paleontologist and the grading and excavation contractors.

CR-5 A paleontological monitor shall be onsite at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., San Diego, Otay, and Sweetwater formations) to inspect cuts for contained fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.) The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be onsite on at least a half-time basis during the original cutting of previously undisturbed sediments of moderately sensitive geologic formations (i.e., unnamed river terrace deposits and the Mission Valley Formation) to inspect cuts for contained fossils.

- The monitor shall be onsite on at least a quarter-time basis during the original cutting of previously undisturbed sediments of low sensitivity geologic formations (i.e., Lindavista Formation and Santiago Peak Volcanics [metasedimentary portion only]) to inspect cuts for contained fossils. He or she shall periodically (every several weeks) inspect original cuts in deposits with an unknown resource sensitivity (i.e., Quaternary alluvium).

- In the event that fossils are discovered in unknown, low, or moderately sensitive formations, the Applicant shall increase the per-day field monitoring time. Conversely, if fossils are not discovered, the monitoring, at the discretion of the Planning Department, shall be reduced. A paleontological monitor is not needed during grading of rocks with no resource sensitivity (i.e., Santiago Peak Volcanics, metavolcanic portion).

CR-6 When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such

as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site.

CR-7 Prepared fossils along with copies of all pertinent field notes, photos, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.

CR-8 Impacts to areas not planned for mass excavation operations (i.e., open space and parklands) shall be mitigated by setting aside certain portions of these areas as paleontological/geological preserves.

e) Disturb any human remains, including those interred outside of formal cemeteries?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: Human remains in a previously unknown burial site could potentially be encountered during the remediation activities associated with the project. Any alterations to human remains associated with the project would be considered a significant adverse impact. However, implementation of Mitigation Measure CR-9, which details the appropriate actions necessary in the event human remains are encountered, would reduce the impacts in this regard to a less than significant level. In addition, since there are no cumulative projects in the vicinity and all other projects would be required to comply with the same requirements, if human remains are identified, there would not be a significant cumulative impact in this regard.

Mitigation Measure:

CR-9 If human remains are discovered during grading operations, the archaeological monitor shall secure the discovery site from any further disturbance and shall comply with the California Public Resources Code (PRC) Section 5097.98. If the human remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent (MLD) of the deceased Native American. Pursuant to the PRC Section 5097.98, the property owner and the MLD will consult regarding the disposition of the human remains. Grading operations within the affected area may resume once the site has been fully

evaluated and mitigated to the satisfaction of the Development Services Director (or their designee). The Archaeological Monitor shall summarize the findings in a letter report to the City following the completion of mass grading activities.

VI. GEOLOGY AND SOILS -- Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project is not located in a fault rupture hazard zone identified by the Alquist-Priolo Earthquake Fault Zoning Act, Special Publication 42, Revised 1997, Fault-Rupture Hazards Zones in California, or located within any other area with substantial evidence of a known fault. Therefore, there will be no impact from the exposure of people or structures to adverse effects from a known fault-rupture hazard zone as a result of this project.

ii. Strong seismic ground shaking?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project area is located within southern California, which is seismically active and therefore, the project area would be susceptible to strong seismic ground shaking. However, the project is a remediation project and does not involve development of any structures. Therefore, ground shaking impacts would be less than significant in this regard.

iii. Seismic-related ground failure, including liquefaction?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project site is located within a "Potential Liquefaction Area" as identified in the County Guidelines for Determining Significance for Geologic Hazards. A permanent AOC Engineered Unit involving long-term consolidation of remediation waste would require design and construction of a protective and reliable unit, presenting no significant risk to human health or the environment, and would require institutional controls, including a deed restriction/land use covenant, site security, groundwater monitoring, and on-going maintenance and monitoring of the cap. Therefore, there will be there will be no potentially significant impact from the exposure of people or structures to adverse effects from a known area susceptible to ground failure, including liquefaction. In addition, since impacts related to liquefaction would be eliminated, earthquake-induced lateral spreading is not considered to be a seismic hazard at the site and impacts would be less than significant.

iv. Landslides?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The site is located within a "Landslide Susceptibility Area" as identified in the County Guidelines for Determining Significance for Geologic Hazards. Landslide Susceptibility Areas were developed based on landslide risk profiles included in the *Multi-Jurisdictional Hazard Mitigation Plan, San Diego, CA* (URS, 2004). Landslide risk areas from this plan were based on data including steep slopes (greater than 25%); soil series data (SANDAG based on USGS 1970s series); soil-slip susceptibility from USGS; and Landslide Hazard Zone Maps (limited to western portion of the County) developed by the California Department of Conservation, Division of Mines and Geology (DMG). Also included within Landslide Susceptibility Areas are gabbroic soils on slopes steeper than 15% in grade because these soils are slide prone. However, the project involves remediation of surface and subsurface areas impacted from shooting range activities. The project does not involve development of any type and therefore, would not be impacted as a result of landslides.

b) Result in substantial soil erosion or the loss of topsoil?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: The project site is generally underlain by silt, and silty sand and sandy silt with varying amounts of gravel and cobbles to a depth of approximately 15 to 30 feet below grade (fbg). These deposits in turn overly fine sand with varying amounts of silt and clay, extending to the total depth explored of 85 fbg. The remediation activities would involve grading of 76,100 cubic yards of soil. Therefore, the project could result in soil erosion impacts. However, Mitigation Measure AQ-2 has been included in order to ensure impacts regarding soil erosion remain below a less than significant level.

Mitigation Measure: Refer to Mitigation Measure AQ-2.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project involves 76,100 cubic yards of grading that would result in the creation of areas of cut and areas underlain by fill. However, the project is a remediation project and does not propose any type of development. Therefore, impacts regarding unstable geologic units would be less than significant. Also refer to Section VI.(a).iii.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project is located on expansive soils as defined within Table 18-I-B of the Uniform Building Code (1994). As previously described, the soils onsite include silt, and silty sand and sandy silt with varying amounts of gravel and cobbles. These deposits in turn overly fine sand with varying amounts of silt and clay, extending to the total depth explored of 85 fbg. These types of soils have a moderately high expansive potential. However the project will not have any significant impacts

because the project is a remediation project and would not involve development of any type. Therefore, these soils will not create substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project involves remediation of surface and subsurface areas impacting by shooting range activities. The project does not propose any septic tanks or alternative wastewater disposal systems since no wastewater will be generated.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Greenhouse Gas (GHG) Emissions are said to result in an increase in the earth's average surface temperature commonly referred to as global warming. This rise in global temperature is associated with long-term changes in precipitation, temperature, wind patterns, and other elements of the earth's climate system, known as climate change. These changes are now broadly attributed to GHG emissions, particularly those emissions that result from the human production and use of fossil fuels.

GHGs include carbon dioxide, methane, halocarbons (HFCs), and nitrous oxide, among others. Human induced GHG emissions are a result of energy production and consumption, and personal vehicle use, among other sources. A regional GHG inventory prepared for the San Diego Region[3] identified on-road transportation (cars and trucks) as the largest contributor of GHG emissions in the region, accounting for 46% of the total regional emissions. Electricity and natural gas combustion were the second (25%) and third (9%) largest regional contributors, respectively, to regional GHG emissions. Climate changes resulting from GHG emissions could produce an array of

[3] San Diego County Greenhouse Gas Inventory: An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets. University of San Diego and the Energy Policy Initiatives Center (EPIC), September 2008.

adverse environmental impacts including water supply shortages, severe drought, increased flooding, sea level rise, air pollution from increased formation of ground level ozone and particulate matter, ecosystem changes, increased wildfire risk, agricultural impacts, ocean and terrestrial species impacts, among other adverse effects.

In 2006, the State passed the Global Warming Solutions Act of 2006, commonly referred to as AB 32, which set the GHG emissions reduction goal for the State of California into law. The law requires that by 2020, State emissions must be reduced to 1990 levels by reducing greenhouse gas emissions from significant sources via regulation, market mechanisms, and other actions.

According to the San Diego County Greenhouse Gas Inventory (2008), the region must reduce its GHG emissions by 33 percent from "business-as-usual" emissions to achieve 1990 emissions levels by the year 2020. "Business-as-usual" refers to the 2020 emissions that would have occurred in the absence of the mandated reductions.

Senate Bill 375 (SB 375), passed in 2008, links transportation and land use planning with global warming. It requires CARB to set regional targets for the purpose of reducing greenhouse gas emissions from passenger vehicles. Under this law, if regions develop integrated land use, housing and transportation plans that meet SB 375 targets, new projects in these regions can be relieved of certain review requirements under CEQA. Development of regional targets is underway and SANDAG is in the process of preparing the region's Sustainable Communities Strategy (SCS) which will be a new element of the 2050 Regional Transportation Plan (RTP). The strategy will identify how regional GHG reduction targets, as established by the CARB, will be achieved through development patterns, transportation infrastructure investments, and/or transportation measures or policies that are determined to be feasible.

In addressing the potential for a project to generate GHG emissions that would have a potentially significant cumulative effect on the environment, a 900 metric ton threshold was selected to identify those projects that would be required to calculate emissions and implement mitigation measures to reduce a potentially significant impact. The 900 metric ton screening threshold is based on a threshold included in the California Air Pollution Controls Officers Association (CAPCOA) white paper[4] that covers methods for addressing GHG emissions under CEQA. The CAPCOA white paper references the 900 metric ton guideline as a conservative threshold for requiring further analysis and mitigation. The 900 metric ton threshold was based on a review of data from four diverse cities (Los Angeles in southern California and Pleasanton, Dublin, and Livermore in northern California) to identify the threshold that would capture at least 90% of the residential units or office space on the pending applications list. This threshold will require a substantial portion of future development to minimize GHG emissions to ensure implementation of AB 32 targets is not impeded. By ensuring that

[4] See CAPCOA White Paper : "CEQA &Climate Change: *Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* " January 2008 (http://www.capcoa.org/rokdownloads/CEQA/CAPCOA%20White%20Paper.pdf).

projects that generate more than 900 metric tons of GHG implement mitigation measures to reduce emissions, it is expected that a majority of future development will contribute to emission reduction goals that will assist the region in meeting its GHG reduction targets.

It should be noted that an individual project's GHG emissions will generally not result in direct impacts under CEQA, as the climate change issue is global in nature, however an individual project could be found to contribute to a potentially significant cumulative impact. CEQA Guidelines Section 15130(f) states that an EIR shall analyze GHG emissions resulting from a proposed project when the incremental contribution of those emissions may be cumulatively considerable.

The project is a remediation project and is expected to generate less than 900 metric tons of GHG emissions based on estimates of GHG emissions for various project types included in the CAPCOA white paper[5] (refer to the *Air Quality Impact Analysis*, dated December 2011, prepared by TRC, on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013). Carbon dioxide (CO_2) and methane (CH_4) emissions from the project will be generated from construction equipment from the remediation activities. The project's GHG emissions are found to have a less than cumulatively considerable contribution to GHG emissions because the project will generate less than 900 metric tons of GHGs.

Furthermore, projects that generate less than 900 metric tons of GHG, will also participate in emission reductions because air emissions including GHGs are under the purview of CARB (or other regulatory agencies) and will be "regulated" either by CARB, the Federal Government, or other entities. For example, new vehicles will be subject to increased fuel economy standards and emission reductions[6], large and small appliances will be subject to more strict emissions standards, and energy delivered to consumers will increasingly come from renewable sources[7]. As a result, even the emissions that result from projects that produce less than 900 metric tons of GHG will be subject to emission reductions. Likewise, the project would also participate in the

[5] 900 metric tons of GHG emissions are estimated to be generated by 50 Single Family Residential units, 70 apartments/condos, 35,000 sf of general commercial/office, 11,000 sf of retail, or 6,300 sf of supermarket/grocery space.

[6] On September 15, 2009, the U.S. EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) proposed a national program to reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States. The proposed standards would cut CO_2 emissions by an estimated 950 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program.

[7] California's Renewable Portfolio Standard (RPS) requires electric corporations to increase procurement from eligible renewable energy resources by at least 1% of their retail sales annually, until they reach 20% by 2010. In 2008, the governor signed Executive Order S-14-08 (EO) to streamline California's renewable energy project approval process and increase the state's Renewable Energy Standard to 33% renewable power by 2020. The Air Resources Board is in the process of developing regulations to implement the 33% standard known as the California Renewable Electricity Standard (RES).

mandated emissions reductions through energy and resource use that is subject to emission reduction mandates beyond "business-as-usual."

Therefore, it is determined that the project would result in less than cumulatively considerable impacts associated with GHG emissions and no mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: In 2006, the State passed the Global Warming Solutions Act of 2006, commonly referred to as AB 32, which set the greenhouse gas emissions reduction goal for the State of California into law. The law requires that by 2020, State emissions must be reduced to 1990 levels by reducing greenhouse gas emissions from significant sources via regulation, market mechanisms, and other actions.

Senate Bill 375 (SB 375), passed in 2008, links transportation and land use planning with global warming. It requires the CARB to set regional targets for the purpose of reducing greenhouse gas emissions from passenger vehicles. Under this law, if regions develop integrated land use, housing and transportation plans that meet SB 375 targets, new projects in these regions can be relieved of certain review requirements under CEQA. Development of regional targets is underway and SANDAG is in the process of preparing the region's SCS which will be a new element of the 2050 RTP. The strategy will identify how regional greenhouse gas reduction targets, as established by the CARB, will be achieved through development patterns, transportation infrastructure investments, and/or transportation measures or policies that are determined to be feasible.

To implement State mandates to address climate change in local land use planning, local land use jurisdictions are generally preparing GHG emission inventories and reduction plans and incorporating climate change policies into local General Plans to ensure development is guided by a land use plan that reduces GHG emissions. The County of San Diego is currently in the process of updating its General Plan and incorporating associated climate change policies. These policies will provide direction for individual development projects to reduce GHG emissions and help the County meet its GHG emission reduction targets.

Until local plans are developed to address greenhouse gas emissions, such as a local Sustainable Communities Strategy and updated General Plan Policies, the project is evaluated to determine whether it would impede the implementation of AB 32 GHG

reduction targets. For the reasons discussed in the response to question VII.a), the project would not impede the implementation of AB 32 reduction targets. Therefore, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Impacted soil and debris piles containing lead, lead pellets, and target debris would be excavated or vacuumed, loaded and transported across the project site. Approximately 65,000 cubic yards of contaminated soil would be maintained on-site for consolidation and capping. Approximately 6,600 cubic yards of wood debris would be transported to the Otay Landfill, excluding treated wood. This is also a potential that approximately 4,500 cubic yards of White Material will also be transported to the Otay Landfill. The transport of disposal of the wood debris and possibly the White Material would be in compliance with all applicable U.S. EPA regulations and state and local regulations. Therefore, impacts would be less than significant in this regard.

b) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project is not located within one-quarter mile of an existing or proposed school. Therefore, the project will not have any effect on an existing or proposed school.

c) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, or is otherwise known to have been subject to a release of hazardous substances and, as a result, would it create a significant hazard to the public or the environment?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: As described in the Project Description above, the project involves the investigation and remediation of surface and subsurface areas impacted from shooting range activities at the former Otay Skeet and Trap Shooting Range. The project includes remediation of soil impacted by lead and PAHs, removal of the "White Material," as well as the removal of target debris and wood debris from the site. The remedial activities have been performed with the approval and under the oversight of the County of San Diego DEH. DEH was formally designated in 2004 by the California Environmental Protection Agency (Cal/EPA) as the lead administrative agency to oversee the investigation and remediation of the site, pursuant to Health and Safety Code section 25260 et seq. In addition, the California Department of Toxics Substances Control (DTSC) is providing formal consultation to DEH regarding the site.[8] Therefore, with implementation of the project, the contamination of the project site will be eliminated and impacts in this regard would be less than significant.

d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project is located within the Airport Influence Area (AIA) for the Brown Field Municipal Airport. However, the proposed project will not result in hazards to airport safety or surrounding land uses since the project is a remediation project and it does not propose any distracting visual hazards including but not limited to distracting lights, glare, sources of smoke or other obstacles or an electronic hazard that would interfere with aircraft instruments or radio communications. Therefore, the project will not constitute a safety hazard for people residing or working in the project area.

e) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

[8] DTSC entered into a Consultative Services Agreement with Flat Rock to assist DEH (at the request of DEH), in the review of Flat Rock's initial Remedial Investigation and Feasibility Study (RI/FS) (TRC, 2005) and subsequent environmental documents related to characterization and remediation of the Site.

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project is not within one mile of a private airstrip. As a result, the project will not constitute a safety hazard for people residing or working in the project area.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

The following sections summarize the project's consistency with applicable emergency response plans or emergency evacuation plans.

i. OPERATIONAL AREA EMERGENCY PLAN AND MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN:

Less Than Significant Impact: The Operational Area Emergency Plan is a comprehensive emergency plan that defines responsibilities, establishes an emergency organization, defines lines of communications, and is designed to be part of the statewide Standardized Emergency Management System. The Operational Area Emergency Plan provides guidance for emergency planning and requires subsequent plans to be established by each jurisdiction that has responsibilities in a disaster situation. The Multi-Jurisdictional Hazard Mitigation Plan includes an overview of the risk assessment process, identifies hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives and actions for each jurisdiction in the County of San Diego, including all cities and the County unincorporated areas. The project will not interfere with this plan because it will not prohibit subsequent plans from being established or prevent the goals and objectives of existing plans from being carried out.

ii. SAN DIEGO COUNTY NUCLEAR POWER STATION EMERGENCY RESPONSE PLAN

No Impact: The San Diego County Nuclear Power Station Emergency Response Plan will not be interfered with by the project due to the location of the project, plant and the specific requirements of the plan. The emergency plan for the San Onofre Nuclear Generating Station includes an emergency planning zone within a 10-mile radius. The

project site is located over 50 miles south of the San Onofre Nuclear Generating Station and therefore, is not within the 10-mile radius subject to the jurisdiction of the San Diego County Nuclear Power Station Emergency Response Plan.

iii. OIL SPILL CONTINGENCY ELEMENT

No Impact: The Oil Spill Contingency Element will not be interfered with because the project is not located along the coastal zone or coastline.

iv. EMERGENCY WATER CONTINGENCIES ANNEX AND ENERGY SHORTAGE RESPONSE PLAN

No Impact: The Emergency Water Contingencies Annex and Energy Shortage Response Plan will not be interfered with because the project does not propose altering major water or energy supply infrastructure, such as the California Aqueduct.

v. DAM EVACUATION PLAN

Less Than Significant Impact: Even though the project is located within a dam inundation zone, the project is not a unique institution that would be difficult to safely evaluate in the event of a dam failure. Unique institutions, as defined by the Office of Emergency Services, include hospitals, schools, skilled nursing facilities, retirement homes, mental health care facilities, care facilities for patients with disabilities, adult and childcare facilities, jails/detention facilities, stadiums, arenas, amphitheaters, or a similar use. Since the project does not propose a unique institution in a dam inundation zone, the project would not impair implementation of or physically interfere with the implementation of an emergency response plan.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project site is identified as being located within a wildland fire hazard area. However, a Fire Service Availability Letter, dated February 1, 2011, has been received from the Chula Vista Fire Department.[9] While the conditions from the Chula Vista Fire Department include providing a 100 foot clearing around all structures and coordination with the Chula Vista Fire Department regarding environmental mitigation for fuel break requirements, the project is a remediation project and therefore, would not

[9] The Fire Service Availability Letter indicates the expected emergency travel time to the project site to be seven minutes.

involve development of any structures. Therefore, the project would not expose people or structures to a significant risk involving wildland fires and impacts would be less than significant.

h) Propose a use, or place residents adjacent to an existing or reasonably foreseeable use that would substantially increase current or future resident's exposure to vectors, including mosquitoes, rats or flies, which are capable of transmitting significant public health diseases or nuisances?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not involve or support uses that allow water to stand for a period of 72 hours (3 days) or more (e.g. artificial lakes, agricultural irrigation ponds). Also, the project does not involve or support uses that will produce or collect animal waste, such as equestrian facilities, agricultural operations (chicken coops, dairies etc.), solid waste facility or other similar uses. Therefore, the project will not substantially increase current or future resident's exposure to vectors, including mosquitoes, rats or flies.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

a) Violate any waste discharge requirements?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project is a remediation project which requires grading activities and the excavation of approximately 76,100 cubic yards of soil. As such, the project would be required to obtain a General Construction Storm Water Permit (General Permit) from the RWQCB, which will identify measures required to ensure that there will not be a change in the quantity or quality of storm water from the site. In addition, a SWPPP has been prepared for the project. The SWPPP will also include BMPs in order to control storm water runoff such that erosion, sedimentation, pollution, etc. are minimized. These measures will enable the project to meet waste discharge requirements as required by the Land-Use Planning for New Development and Redevelopment Component of the San Diego Municipal Permit (SDRWQCB Order No. R9-2007-0001), as implemented by the San Diego County Jurisdictional Urban Runoff Management Program (JURMP) and Standard Urban Storm Water Mitigation Plan (SUSMP).

Finally, the project's conformance to the waste discharge requirements listed above ensures the project will not create cumulatively considerable water quality impacts related to waste discharge because, through the permit, the project will conform to Countywide watershed standards in the JURMP and SUSMP, derived from State regulation to address human health and water quality concerns. Therefore, the project will not contribute to a cumulatively considerable impact to water quality from waste discharges.

b) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, could the project result in an increase in any pollutant for which the water body is already impaired?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project lies in the Otay Valley Hydrologic Area (HA) of the Otay Hydrologic Unit. According to the Clean Water Act Section 303(d) list, June 2007, although portions of the Pacific Ocean at Coronado are impaired for coliform bacteria, no portion of the Otay River, which is tributary to the Pacific Ocean, is impaired. Constituents of concern in the Otay watershed include coliform bacteria, trace metals and other toxic constituents. However, the project does not propose any known sources of pollutants, or land use activities that might contribute these pollutants.

c) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The RWQCB has designated water quality objectives for waters of the San Diego Region as outlined in Chapter 3 of the Water Quality Control Plan (Plan). The water quality objectives are necessary to protect the existing and potential beneficial uses of each hydrologic unit as described in Chapter 2 of the Plan.

The project lies in the Otay Valley HA of the Otay Hydrologic Unit that has the following existing and potential beneficial uses for inland surface waters, coastal waters, reservoirs and lakes, and ground water: municipal and domestic supply; agricultural supply; industrial process supply, industrial service supply; contact water recreation;

non-contact water recreation; warm freshwater habitat; wildlife habitat; and, rare, threatened, or endangered species habitat.

Remediation activities and materials that have the potential to contribute sediment to storm water discharges include:

- Disturbed soils and stockpiled soils, including soils impacted by lead, PAHs, and perchlorate;
- Shooting target debris;
- Wood debris;
- Equipment fuels and oils;
- Landscaping chemicals, fertilizers, and other soil amendments;
- Sanitary waste; and
- Remediation vehicle and equipment fluids (fuel, oil, grease, coolant, etc.).

However, the following site design measures, source control BMPs, and/or treatment control BMPs will be employed to reduce potential pollutants in runoff to the maximum extent practicable, such that the proposed project will not cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses.

- NS-1, Water Conservation Practices – Water will be used only as needed for dust control during grading operations and to facilitate revegetation, but not to an extent that a surface flow would be created.
- NS-9, Vehicle and Equipment Fueling - Vehicle and equipment fueling will be performed at the site during construction.
- NS-10, Vehicle and Equipment Maintenance - Vehicle and equipment maintenance will be performed at the site. A spill kit will be maintained at the site and all spills from vehicles will be contained and cleaned up immediately.
- WM-1, Material Delivery and Storage – Fuel and equipment maintenance fluids will be delivered and stored onsite using properly sealed containers and stored only in designated areas. Proper secondary spill containment structures will be used to prevent spills from contacting site soil and to prevent exposure to rain.
- WM-2, Material Use – Site employees will be trained on proper use of chemicals to minimize spills. Material Safety Data Sheets (MSDS) will be provided for all

chemicals being used onsite. Fluid quantities will be documented in the site Construction Materials Inventory Log.

- WM-3, Stockpile Management – A fiber roll or silt fence sediment barrier, or earthen berm, will be placed around all stockpiles of soil, concrete demolition waste or other materials, stockpiles may be covered if left inactive or wind erosion occurs.

- WM-4, Spill Prevention and Control – Fuel and equipment maintenance fluids will be stored at the site. A spill kit will be maintained at the site and all spills from vehicles will be contained and cleaned up immediately.

- WM-5, Solid Waste Management – Solid wastes generated from demolition activities will be promptly removed and disposed at an appropriate off-site facility.

- WM-7, Contaminated Soil Management – The purpose of the remediation project is to appropriately manage impacted soils at the site. Therefore, if this California Storm Water Quality Association (CASQA) guidance conflicts with the remediation plan, the Qualified SWPPP Practitioner (QSP) should attempt to reconcile the intent of this guidance with the requirements of the remediation plan. In general, it is anticipated that the site-specific remedial plan will take precedence over this general guidance.

- WM-8, Concrete Waste Management – Stockpiles of concrete demolition waste should be managed in accordance with BMP WM-3, Stockpile Management.

- WM-9, Sanitary/Septic Waste Management – On-site sanitary facilities will be secured and regularly serviced. They will also have secondary containment.

- EC-1, Scheduling – Soil disturbance activities are scheduled to occur over a period of approximately three to four months beginning in June 2012. Soil disturbance activities will consider weather forecast before commencement.

- EC-3, Hydraulic Mulch – Hydraulic mulch such as bonded fiber matrix (BFM) will be utilized in inactive disturbed areas and potentially on soil stockpiles if needed. It will be re-applied as necessary. Alternatively, BMP EC-6 may be used especially if water availability and use becomes an issue.

- EC-4, Hydroseeding – A city approved seed mix will be applied along with hydraulic mulch (EC-3) to disturbed areas in order to provide final stabilization through revegetation. The hydraulic mulch will provide temporary stabilization while the applied seeds germinate and grow adequately enough to meet permit closure criteria.

- EC-6, Straw Mulch – Straw mulch will be utilized in disturbed areas along with a plant-based binder/tackifier. The binder/tackifier will be re-applied as necessary.

- EC-15, Soil Preparation/Roughening – Prior to hydroseeding and fiber roll installation, disturbed areas will be prepared in order to facilitate revegetation. Areas that may have been compacted, either incidentally due to heavy vehicle traffic or purposely to avoid subsurface settlement, will have shallow surface soils be disked scarified or otherwise decompacted to facilitate plant growth. Disturbed soils intended for hydroseeding will be roughened in accordance with the CASQA BMP guidance in order to reduce erosion.

-
- SE-1, Silt Fence – Silt fence will be used for perimeter protection along disturbed areas during and after grading. Silt fence may also be used around soil stockpiles.

- SE-5, Fiber Rolls – Straw wattles may be used for perimeter protection along disturbed areas during and after grading in areas where expected flows are low. Rolls may also be used around soil stockpiles. Straw wattles will be placed in hydroseed areas prior to hydroseeding at intervals appropriate for the slope to control eroded sediment.

- SE-7, Street Sweeping and Vacuuming – roadways will be maintained to prevent soil and sediment from leaving the site property.

- SE-10, Storm Drain Inlet Protection – Proper storm water drain protection (e.g. straw wattles, geotextile insert, rock bags) will be employed to prevent sediment run-off into storm drains.

- TC-1, Stabilized Construction Entrance/Exit – The ingress/egress point of the excavation area will be surfaced with gravel and use rattle plates to minimize tracking of soil onto stabilized construction roadways and public roads.

- WE-1, Wind Erosion Control – A water truck will operate during excavation and hauling activities to reduce windborne dust.

In addition, the proposed BMPs are consistent with regional surface water, storm water and groundwater planning and permitting process that has been established to improve the overall water quality in County watersheds. As a result, the project will not contribute to a cumulatively considerable exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses. Refer to Section VIII., Hydrology and Water Quality, Question b, for more information on regional surface water and storm water planning and permitting process.

d) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-

existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project will only utilize groundwater for dust control purposes and will not create a permanent demand for groundwater, including for irrigation, domestic or commercial demands. In addition, the project does not involve operations that would interfere substantially with groundwater recharge including, but not limited to the following: the project does not involve regional diversion of water to another groundwater basin; or diversion or channelization of a stream course or waterway with impervious layers, such as concrete lining or culverts, for substantial distances (e.g. ¼ mile). These activities and operations can substantially affect rates of groundwater recharge. Therefore, no impact to groundwater resources is anticipated.

e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project is a remediation project that would involve the excavation of approximately 76,100 cubic yards of soil. As outlined in the SWPPP, dated December 2011, prepared by TRC, on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013, the project will implement site design measures, source control, and/or treatment control BMPs to reduce potential pollutants, including sediment from erosion or siltation, to the maximum extent practicable from entering storm water runoff (refer to Section IX., Hydrology and Water Quality, Question c). These measures will control erosion and sedimentation and satisfy waste discharge requirements as required by the Land-Use Planning for New Development and Redevelopment Component of the San Diego Municipal Permit (SDRWQCB Order No. R9-2007-0001), as implemented by the San Diego County JURMP and SUSMP. The SWPPP specifies and describes the implementation process of all BMPs that will address equipment operation and materials management, prevent the erosion process from occurring, and prevent sedimentation in any onsite and downstream drainage swales. The Department of Public Works will ensure that the Plan is implemented as proposed. Due to these factors, it has been found that the project will not result in significantly increased erosion or sedimentation potential and

will not alter any drainage patterns of the site or area on- or off-site. In addition, because erosion and sedimentation will be controlled within the boundaries of the project, the project will not contribute to a cumulatively considerable impact. For further information on soil erosion refer to Section VI., Geology and Soils, Question b.

f) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project will not significantly alter established drainage patterns or significantly increase the amount of runoff for the following reasons:

- Drainage will be conveyed to either natural drainage channels or approved drainage facilities.
- The project will not increase water surface elevation in a watercourse.
- The project will not increase surface runoff exiting the project site equal to or greater than one cubic foot/second.

Therefore, the project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Moreover, the project will not contribute to a cumulatively considerable alteration or a drainage pattern or increase in the rate or amount of runoff, because the project will substantially increase water surface elevation or runoff exiting the site, as detailed above.

g) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project will not result in the conversion of previously pervious land to impervious surfaces. Therefore, there would not be an increase in runoff water that would exceed the capacity of existing or planned storm water drainage systems.

h) Provide substantial additional sources of polluted runoff?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Refer to Section IX., Hydrology and Water Quality, Questions a, b, and c.

i) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, including County Floodplain Maps?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project is a remediation project and would not involve development of housing. Therefore, there would be no impact in this regard.

j) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project is a remediation project and does not propose development of any type. Therefore, the project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows.

k) Expose people or structures to a significant risk of loss, injury or death involving flooding?

☐ Potentially Significant Impact ☒ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

Less Than Significant: The project lies within a special flood hazard area as identified on the Flood Insurance Rate Map (FIRM). However, the project is a remediation project and does not propose development of any type. Therefore, the project would not expose people or structures to a significant risk involving flooding and impacts would be less than significant in this regard.

l) Expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam?

☐ Potentially Significant Impact ☒ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project lies within a mapped dam inundation area for a major dam/reservoir within San Diego County, as identified on an inundation map prepared by the dam owner. However, the project is a remediation project that would not result in development of any type. Therefore, the project would not expose people or structures to a significant risk as a result of a failure of a levee or dam. In addition, the San Diego County Office of Emergency Services has an established emergency evacuation plan for the area and the project will not interfere with this plan.

m) Inundation by seiche, tsunami, or mudflow?

☐ Potentially Significant Impact ☒ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

i. SEICHE

No Impact: The project site is not located along the shoreline of a lake or reservoir; therefore, could not be inundated by a seiche.

ii. TSUNAMI

No Impact: The project site is located more than a mile from the coast; therefore, in the event of a tsunami, would not be inundated.

iii. MUDFLOW

Less Than Significant Impact: Mudflow is type of landslide. The site is located within a moderate to high landslide susceptibility zone. However, the project is a remediation project and does not involve development of any type. Therefore, it is not anticipated that the project will expose people or property to inundation due to a mudflow.

X. LAND USE AND PLANNING -- Would the project:

a) Physically divide an established community?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not propose the introduction of new infrastructure such major roadways or water supply systems, or utilities to the area. Therefore, the proposed project will not significantly disrupt or divide the established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project site is located within the City of Chula Vista and is designated as Open Space in the *City of Chula Vista Vision 2020 General Plan* and zoned P-C. The project is a remediation project that would not result in development of any type and therefore, would not conflict the project sites land use designation or zoning designation. The project site is located within the *City of Chula Vista MSCP Subarea Plan*; however, as described in Section IV., Biological Resources, the project would not conflict with the *City of Chula Vista MSCP Subarea Plan.*

XI. MINERAL RESOURCES -- Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project site or land within the vicinity of a site has been classified by the California Department of Conservation – Division of Mines and Geology (Update of Mineral Land Classification: Aggregate Materials in the Western San Diego Production-Consumption Region, 1997) as an area of "Identified Mineral Resource Significance" (MRZ-2). However, the project is a remediation project and therefore, would not result in the loss of availability of a known mineral resource. Therefore, impacts in this regard would be less than significant.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: As described above, the project site is designated as MRZ-2. However, the project involves the remediation of surface and subsurface areas. Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan will occur as a result of this project.

XII. NOISE -- Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

A *Noise Assessment,* dated February 20, 2012, prepared by TRC, is on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013.

Noise Defined

Noise is defined as unwanted sound. The range of pressures that cause the vibrations that create noise is large. Noise is therefore measured on a logarithmic scale, expressed in decibels (dB). The frequency of a sound is the "pitch." The unit for frequency is hertz (Hz). Most sounds are composed of a composite of frequencies. The

normal human ear can usually distinguish frequencies from 20 Hz (low frequency) to about 20,000 Hz (high frequency), although people are most sensitive to frequencies between 500 and 4,000 Hz. The individual frequency bands can be combined into one overall dB level.

Noise is typically measured on the A-weighted scale (dBA). The A-weighting scale was developed and has been shown to provide a good correlation with the human response to sound and is the most widely used descriptor for community noise assessments (Harris, 1991). The faintest sound that can be heard by a healthy ear is approximately 0 dBA, while an uncomfortably loud sound is about 120 dBA. In order to provide a frame of reference, some common sound levels are listed below.

- Pile Driver at 100 feet 90 to 100 dBA
- Chainsaw at 30 feet 90 dBA
- Truck at 100 feet 85 dBA
- Noisy Urban Environment 75 dBA
- Lawn Mower at 100 feet 65 dBA
- Average Speech 60 dBA
- Typical Suburban Daytime 50 dBA
- Quiet Office 40 dBA
- Quiet Suburban nighttime 35 dBA
- Soft Whisper at 15 feet 30 dBA

City of Chula Vista Noise Ordinance

The project site is located within the City of Chula Vista and therefore, the project would be required to comply with the City of Chula Vista's Noise Ordinance (Chapter 17.24 of the CVMC). However, discussions with City staff indicate that mobile construction equipment and their activities are exempt from the ordinance limits and therefore, their noise ordinance would not be applicable to the project. The discussion below of the City of Chula Vista noise ordinance is therefore for informational purposes.

The City of Chula Vista Noise Ordinance (Chapter 19.68 Performance Standards and Noise Control) limits allowable noise levels from a facility by the land use category that

the receiver is located in, including industrial, commercial, and residential. The most restrictive levels are for residential land uses, for which there are different daytime and nighttime limits. These limits are summarized in Table 12, City of Chula Vista Noise Ordinance.

Table 12
City of Chula Vista Noise Ordinance

Receiving Property Category	Daytime	Nighttime
	7 A.M. to 10 P.M. (Weekdays)	**10 P.M. to 7 A.M. (Weekdays)**
	8 A.M. to 10 P.M. (Weekends)	**10 P.M. to 8 A.M. (Weekends)**
All Residential (except multiple dwelling)	55	45
Multiple Dwelling Residential	60	50
Commercial	65	60
Light Industrial – I-R and I-L Zone	70	70
Heavy Industrial – I Zone	80	80

The City of Chula Vista noise ordinance also provides limitations on allowable hours of construction. Construction activities are limited to the weekday hours of 7:00 A.M. to 10:00 P.M. and 8:00 A.M. to 10:00 P.M. on weekends.

City of San Diego Noise Ordinance

The nearby residential area is located in the City of San Diego. While outside of the City of Chula Vista, this report, for informational purposes, provides the noise ordinance limitations of the City of San Diego. The City of San Diego has a noise ordinance in Section 59.5.0404 of its Municipal Code. The ordinance limits construction activities to the hours of 7:00 A.M. to 7:00 P.M. Construction noise levels of greater than 75 dBA during the 12 hour work period at any residentially zoned property lines is prohibited.

Existing Conditions

The existing noise environment was characterized through ambient noise monitoring at three selected noise sensitive residential locations and a fourth location at the Cricket Wireless Amphitheatre.

- Vista Santa Rosalia (end of street);
- Avenida De Las Vistas (mid-block);

- Avenida De Las Vistas (end of street); and

- Cricket Wireless Amphitheatre.

Short-term (20 minutes in duration) measurements were conducted at the locations. An additional meter was set out at the Vista Santa Rosalia location in order to collect data over a continuous 24-hour period. Noise monitoring was also conducted in locations within and adjacent to the MSCP Preserve area.

Short-term Measurements

Residential Areas

Short-term monitoring (20 minutes in duration at each location) was conducted during the day and late at night. A summary of the measured data during noise monitoring is presented in Table 13, Measured Ambient Noise Level Data (dBA) – Residential Locations.

Table 13
Measured Ambient Noise Level Data (dBA) – Residential Locations

Location	Daytime			Late Night		
	L_{eq}	L_{90}	L_{10}	L_{eq}	L_{90}	L_{10}
Vista Santa Rosalia (end of street)	58	42	57	37	29	41
Avenida De Las Vistas (mid-block)*	56	44	58	50	37	55
Avenida De Las Vistas (end of street)	62	42	60	36	33	38
Cricket Wireless Amphitheatre	52	46	54	40	32	40

* Late night ambient noise levels at this location were affected by a barking dog.

Existing noise sources contributing to the ambient noise environment during the day included vehicular traffic (from Heritage Road, Main Street and local roads), aircraft and natural sounds (dogs barking, frogs). Late at night, contributing noise sources consisted mainly of distant traffic sounds and barking dogs.

The data in the above table reveal that during the day, when construction activities are scheduled to occur, L_{eq} noise levels at all locations ranged from 52 dBA to 62 dBA. Late night L_{eq} levels were lower than daytime levels, ranging from 37 to 50 dBA, although no construction would occur during late night hours.

City of Chula Vista MSCP Subarea Plan Preserve

Ambient noise level measurements at locations within and adjacent to the *City of Chula Vista MSCP Subarea Plan* Preserve were conducted in order to quantify the ambient noise environment. Measurements were conducted during daytime hours at 10 locations for durations of 10 minutes at each location. A summary of the measured noise levels is provided in Table 14, Measured Ambient Noise Level Data (dBA) – MSCP Preserve.

Table 14
Measured Ambient Noise Level Data (dBA) – MSCP Preserve

Location	Daytime		
	L_{eq}	L_{90}	L_{10}
1 - Intersection of Main Street and Heritage Road	61	50	64
2 – Across from the intersection of Entertainment Circle and Heritage Road	69	55	74
3 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 2)	63	53	63
4 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 3)	60	50	63
5 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 4)	58	47	62
6 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 5)	63	48	66
7 – Across from the intersection of Entertainment Circle and Heritage Road (east of location 6)	57	45	59
8 – Adjacent to project site entrance and Otay Skeet and Trap Shooting Range	60	53	64
9 – Dirt road adjacent to project site entrance (east of location 8)	65	47	67
10 – Dirt road adjacent to project site entrance near southeast project boundary (east of location 9)	59	45	60

Measured ambient L_{eq} noise levels in the MSCP Preserve were found to be relatively high, ranging from 57 dBA to 69 dBA. The noise environment in the MSCP Preserve is characterized by sources that include heavy trucks from the Vulcan Materials Company Quarry, vehicular traffic on Heritage Road and Main Street, amplified music and other sources from Knott's Soak City USA, and aircraft from the Brown Field Municipal Airport.

Continuous 24-Hour Measurements

Continuous monitoring (over a 24-hour period) of the existing overall L_{eq} noise levels was conducted at the nearest identified residential location on Vista Santa Rosalia,

where the short-term monitoring discussed above was also conducted. This location has a direct line of site to the proposed remediation area. The data reveals that L_{eq} levels during the hours when construction may occur (7:00 A.M. to 7:00 P.M.) ranged generally from 50 dBA to 60 dBA, in agreement with the short term data collected.

Impact Criteria

Methods of determining the potential for noise impacts are available. The ability of the average person to perceive increases in noise has been documented. In general, an increase of 3 dBA or less is considered to be imperceptible, while an increase of 10 dBA is perceived as a doubling of the sound. Provided in Table 15, Average Ability to Perceive Changes in Noise Levels, is a set of criteria which have been used to estimate an individual's reaction to increases in noise.

Table 15
Average Ability to Perceive Changes in Noise Levels

Increase (dBA)	Human Perception of Sound
2 to 3	Generally imperceptible
5	Readily Noticeable
10	Doubling of the sound
20	Dramatic change

Source: Bolt, Beranek, and Newman, Inc., 1973.

Potential noise impacts in the MSCP Preserve would occur if, during the sensitive bird nesting season, project sound levels exceed 60 dBA or existing ambient conditions for an $L_{eq(1)}$, whichever is greater. This limit is an industry accepted standard for evaluating the potential for noise impacts at sensitive areas. The limit is only applicable during the sensitive bird nesting season.

Noise Modeling Methodology

Computer noise modeling of the mobile construction equipment was conducted utilizing the CadnaA noise model. This three dimensional model maps the noise contours of the overall project in accordance with a variety of standards, primarily VDI 2714 *Outdoor Sound Propagation* and ISO 9613. All sound propagation losses, such as geometric spreading, air absorption, ground absorption, and barrier shielding; can be calculated automatically in accordance with these recognized standards. Topographical features of the surrounding area were also considered in the modeling.

Noise levels of the construction equipment under full load conditions were calculated based on the estimated horsepower rating of each source; utilizing the methodology contained in the document *Prediction of Noise from Power Plant Construction* (Bolt, Beranek, and Newman, 1971). Equipment noise levels are for full throttle operation.

The equipment would not always be in operation, nor would it always be operating at full throttle, so lower noise levels would be expected. However, the use of full load conditions results in a more conservative analysis.

Noise is generated during construction primarily from diesel engines, which power the equipment. Exhaust noise is usually the predominant source of diesel engine noise, which is the reason that maintaining functional mufflers on all equipment would be a requirement of the project. Excavation activities are scheduled to occur 10 hours per day, Monday through Saturday, during daytime hours only. Three distinct phases will be utilized, and were modeled separately. These phases are described below. The equipment modeled for each phase corresponds to the equipment considered in the *Air Quality Impact Assessment* for the project. Both off-road and on-road sources were included in the modeling. On-road sources were assumed to travel north along Heritage Road adjacent to the MSCP Preserve while the off-road sources are simultaneously in operation.

Worker passenger vehicles generate significantly lower levels than the equipment presented below. Further, vehicular traffic (both automobiles and noisier trucks) currently exists as part of the ambient noise environment for this area. As such, the low relative volume of site specific construction worker vehicles will not introduce noise levels greater than those already generated by vehicular traffic on Heritage Road. Passenger vehicles were therefore not evaluated in this analysis thus limiting the evaluation of on-road sources to the offsite hauling to take place only during phase 1.

The modeling for each phase considered hemispherical spreading and atmospheric absorption for this analysis. Standard conditions of 50° F and 70 percent relative humidity were assumed. No credit was taken for any existing off-site residential or commercial buildings, which would act as physical buffers that would further reduce noise levels at the residential locations farther away. Modeling receptors were chosen in the same locations as where monitoring was performed, so that direct comparison to existing noise levels could be made.

Less Than Significant With Mitigation Incorporated:

Short-term Impacts

Residential Areas

As concluded in the *Noise Assessment*, the calculated construction noise levels at the residential locations would be well below the measured daytime ambient conditions. No increases in noiseare projected at any residential locations. At the Cricket Wireless Amphitheatre location, an increase of up to 9 dBA is projected during the temporary site remediation. The Cricket Wireless Amphitheatre is a commercial use that is not considered to be noise sensitive. Notably, the measured existing noise level at this location was the lowest of all locations, since the Amphitheatre was not in use at the time that measurements were conducted. Although not applicable to the project, calculated construction noise levels at all residential locations would be below the City

of Chula Vista noise ordinance limit for daytime hours. Calculated levels would be within the commercial daytime limit at the Cricket Wireless Amphitheatre, if the ordinance were applicable. As such, no noise impacts would be expected at any of the residential locations due to project construction.

MSCP Preserve

As previously described, the project site is adjacent to and within the City's MSCP Preserve area. The MSCP Preserve north of the site potentially includes two sensitive bird species: the coastal California gnatcatcher and the least Bell's vireo, which have nesting seasons of February 15 to August 15, and March 15 to September 15, respectively. The results of the ambient monitoring program conducted in and adjacent to the MSCP Preserve revealed that the existing noise environment is characterized by several sources of noise, and in particular, includes heavy truck traffic at a quarry. Sounds associated with the temporary construction will therefore be similar in nature to those that currently exist. Sound levels from construction will be variable throughout the MSCP Preserve area depending on the location of construction equipment at any given time. The construction activities within the MSCP Preserve will occur outside of the nesting period of sensitive bird species for Phases 4 through 6 and during the sensitive bird nesting season for Phases 1 through 3 (refer to the *Air Quality Impact Analysis*, for a listing and description of all the phases). The modeling analysis included a sound barrier wall along the berm area adjacent to the habitat. Inclusion of this barrier will allow for construction equipment to operate within Limit of Work illustrates on Figures 7 through 9 of the *Noise Assessment Report* (TRC, 2012) without exceeding the 60 dBA or ambient condition at the northern MSCP Preserve boundary (NOI-2). Implementation of the noise barrier as a mitigation measure will reduce construction noise levels such that the project will have no noise impact to the MSCP Preserve north of RA1. Noise levels at the southern MSCP Preserve boundary would be above the threshold; however, sensitive species are not anticipated in this area due to the lack of suitable habitat. As discussed in the *Biological Resources Report* (TRC, 2012), preconstruction surveys will be conducted for the California coastal gnatcatcher and least Bell's vireo. If individuals of these species are detected during the pre-construction survey, an appropriate buffer shall be established around the detected species to ensure that no work will occur within the occupied habitat during the breeding season (BIO-7b).

Noise Barrier Installation Noise Analysis

A noise analysis of potential noise impacts associated with installation of the noise barrier discussed in NOI-1 was conducted as the barrier will likely be installed during sensitive bird species nesting season. The modeling analysis was conducted utilizing the same methodology discussed previously for Phases 1 through 3. Discussions with a potential barrier vendor indicated that the barrier requires that post holes be augered into the ground for the barrier posts. The holes are dug with a two man hand auger equipped with a five horsepower engine. Each post requires less than 10 minutes to dig.

The auger was included in a separate model, located at a point on the future noise barrier closest to the MSCP Preserve. A maximum sound level of 68 dBA at 50 feet

was calculated for the auger. The vendor would utilize a portable V-shaped barrier to shield the MSCP Preserve from the auger. The portable barrier, eight feet high and four feet long on each side, was also included in the model. The barrier was shown to reduce auger noise levels by approximately 20 dBA behind the barrier, with noise levels of 60 dBA or less occurring within the MSCP Preserve. As noted above, each post requires less than 10 minutes to dig. Therefore, no one location on the MSCP Preserve would experience this noise level for an extended period of time, and noise barrier installation noise levels would be below the 60 dBA $L_{eq}(1)$ criterion. No noise impacts on the MSCP Preserve are therefore anticipated during noise barrier installation.

Long-term Impacts

The project is temporary in nature, proposed for approximately six days a week (Monday through Saturday) for a total of approximately 235 days. No adverse long-term impacts were identified. Construction is also scheduled to occur between the hours of 7:00 A.M. and 7:00 P.M., and would comply with the City of San Diego noise ordinance, if applicable. Accordingly, no mitigation measures are required and no significant or adverse long-term noise impacts are anticipated. In addition, it should be noted that no cumulative noise related effects would occur as a result of the remediation project. As set forth in Section 9.0 of the Conformance Letter to the County of San Diego dated March 29, 2012, per communication with Steve Powers, City of Chula Vista, there are no related projects within the City of Chula Vista that would have a cumulative impact. Further, the County of San Diego Property Profile Search did not reveal any projects within a one-mile radius of the project site within the County. Therefore, cumulative impacts would be less than significant.

Mitigation Measure: Refer to Mitigation Measure BIO-7c.

NOI 1 Noise Barrier- Adjacent to Northern MSCP Preserve - As discussed above, a noise barrier wall, approximately 300 feet long and 10 feet high, will be constructed at the edge of the MSCP Preserve. The barrier will likely be constructed during the nesting season. This barrier, along with the reductions afforded by the existing earthen berm, will allow for construction of phases 1-3 to occur during the nesting season up to the blue line indicated on each figure (Figure 7 through 9 of the *Noise Resources Report* (TRC, 2012)) for each phase, and still be within the allowable limit as discussed in Mitigation Measure 2 below.

NOI 2 Modified Limits of Work During Nesting Season - The noise barrier identified in NOI-1, along with the reductions afforded by the existing earthen berm, will allow for construction of phases 1-3 to occur during the nesting season up to the blue line indicated on each figure (Figures 7 through 9 of the *Noise Resources Report (TRC, 2012)*) for each phase, and still be within the allowable limit. This allowable limit will be included on the grading plans submitted to the City of Chula Vista and will be fenced in the field during construction.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: Excessive ground borne vibration is typically caused by activities such as blasting used in mining operations or the use of pile drivers, bulldozers, caisson drilling, and jackhammers during construction activities. The project does not propose any blasting activities and the project would not utilize any of the types of construction equipment that would create excessive ground borne vibrations. In addition, vibration decays logarithmically from the source so that typically vibration impacts from construction activities are not experienced beyond 50 feet from the source. The nearest sensitive receptors (residential uses) are located 1,200 feet away from the nearest edge of the project site and most of the construction activities would occur away from this point and therefore, at a greater distance from the residences. Consequently, no excessive ground borne vibrations impacts would be expected. In addition, since there are no cumulative projects in the vicinity, there would be no cumulative impacts regarding ground borne vibrations

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: No permanent increases would occur at any residential areas with the project. Remediation activities are anticipated to occur six days a week (Monday through Saturday), for a total of approximately 235 days.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: No substantial temporary or periodic increase in ambient noise above existing levels is anticipated at any residential area due to daytime remediation activities. Increases in ambient noise levels were shown to be one dBA or less at all residences. Larger temporary increases were noted for the Cricket Wireless Amphitheatre but this is not considered to be a noise sensitive use. Further, project noise levels would be below the City of Chula Vista noise ordinance limit.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project is located within an Airport Land Use Compatibility Plan (ALUCP) for the Brown Field Municipal Airport. However, the project implementation is not expected to expose people residing or working in the project area to excessive noise levels in excess of the CNEL 60 dB(A). This is based on the *Noise Assessment*, prepared by TRC, dated February 20, 2012.

In addition, based on the list of past, present and future projects there are no new or expanded public airports projects in the vicinity that may extend the boundaries of the CNEL 60 dB noise contour or ALUCP (refer to Section XVIII. Mandatory Findings of Significance, for a discussion regarding cumulative projects). Therefore, the project will not expose people residing or working in the project area to excessive airport-related noise on a project or cumulative level.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project is not located within a one-mile vicinity of a private airstrip; therefore, the project will not expose people residing or working in the project area to excessive airport-related noise levels.

XIII. POPULATION AND HOUSING -- Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project will not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project will not displace any existing housing since the site is currently vacant and the project is a remediation project that will not result in development of any type.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project will not displace a substantial number of people since the site is currently vacant.

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?
ii. Police protection?
iii. Schools?
iv. Parks?
v. Other public facilities?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: Based on the service availability forms received for the project, the proposed project will not result in the need for significantly altered services or facilities. A service availability form has been provided which indicate existing services are available to the project from the Chula Vista Fire Department. The project does not involve the construction of new or physically altered governmental facilities including but not limited to fire protection facilities, sheriff facilities, schools, or parks in order to maintain acceptable service ratios, response times or other performance service ratios or objectives for any public services. Therefore, the project will not have an adverse physical effect on the environment because the project does not require new or significantly altered services or facilities to be constructed.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not propose any residential use, included but not limited to a residential subdivision, mobile home park, or construction for a single-family residence that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, the construction or expansion of recreational facilities cannot have an adverse physical effect on the environment.

XVI. TRANSPORTATION AND TRAFFIC -- Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of the effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation: A *Traffic Analysis,* dated August 15, 2011, prepared by RBF, is on file with the Department of Planning and Land Use as Environmental Review Number ER-05-19-013.

Less Than Significant With Mitigation Incorporated: The only increase in traffic associated with the project would be the truck trips related to the transport of material to off-site facilities. Depending on whether the transport of material off-site occurred over a 20-, 50-, or 100-day period, the project would result in an increase of 33, 13, or 7 truck trips per day, respectively. Since trucks tend to have a more significant effect on roadway operations when compared to passenger vehicles, passenger car equivalency factors (PCE's) were applied to convert truck traffic to passenger vehicle equivalents. As such, it was calculated that the proposed project will result in a range of 42 to 198 PCE's a day, depending on the loading and transport schedule. This represents a maximum 1.9 percent increase along Heritage Road and a maximum 2.1 percent increase on Main Street. During the transport period, all roads are forecast to continue at acceptable level of service, without and with the proposed project. The addition of project trips generated by the project is not forecast to exceed level of service standards established by the City of Chula Vista for designed roads or highways. The short-term increase in truck trips would also not result in a conflict with applicable plans,

ordinances, or policies regarding any other modes of transportation (mass transit, pedestrian paths, bicycle paths, etc.). However, conditions may occur in the field that may require special consideration. Therefore, mitigation measures have been established to address special circumstances that may occur as a result of this project.

Mitigation Measures:

TR-1 Due to the proximity of the project site to Cricket Wireless Amphitheatre, it is recommended that off-site construction-related traffic cease a minimum of two hours prior to the start of an event at Cricket Wireless Amphitheatre. All traffic control, related to this project should be cleared from Heritage Road two hours prior to all events at Cricket Wireless Amphitheatre.

TR-2 Prior to the City's issuance of any Land Development Permits, a traffic control plan shall be prepared to the satisfaction of the City Engineer, Police Chief, and Fire Marshall. At a minimum, the Traffic Control Plan shall identify the type, quantity and location of traffic control signage, striping, detours, flagging operations and any other devices which will be used during construction to guide motorists safely along public roadways. The traffic control plan shall also include provisions for coordinating with adjacent property owners including Cricket Amphitheater, Knott's Soak City and the Otay Valley Quarry regarding event times and to avoid any conflicts with any existing operational control plans. The Traffic Control Plan will ensure that access and traffic flow will be maintained, and that emergency access will not be restricted.

TR-3 Flaggers are recommended at the project access roads to assist slower moving trucks as they join the traffic flow on Heritage Road.

TR-4 Limits to construction related traffic shall be identified on the Traffic Control Plans that will be prepared and submitted to the City of Chula Vista for approval prior to the issuance of Land Development Permits.

TR-5 Adjustments to haul hours may occur if the addition of truck trips during the a.m. and p.m. peak period result in observed operational issues.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation: The designated congestion management agency for the San Diego region is SANDAG. SANDAG is responsible for preparing the RTP of which the Congestion Management Program (CMP) is an element to monitor transportation

system performance, develop programs to address near- and long-term congestion, and better integrate land use and transportation planning decisions. The CMP includes a requirement for enhanced CEQA review applicable to certain large developments that generate an equivalent of 2,400 or more average daily vehicle trips or 200 or more peak hour vehicle trips. These large projects must complete a traffic analysis that identifies the project's impacts on CMP system roadways, their associated costs, and identify appropriate mitigation. Early project coordination with affected public agencies, the Metropolitan Transit System (MTS) and the North County Transit District (NCTD) is required to ensure that the impacts of new development on CMP transit performance measures are identified.

Less Than Significant Impact: The project proposes an increase of 42 to 198 PCE's a day, depending on the loading and transport schedule. The additional 42 to 198 PCE's from the proposed project do not exceed the 2,400 trips (or 200 peak hour trips) required for study under the region's CMP. Additionally, the project does not involve construction of any new buildings, nor does it propose a new primary use. The remediation project will not generate Average Daily Trips (ADTs) on a daily basis. Therefore, the project will not conflict with travel demand measures or other standards of the congestion management agency.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

☐	Potentially Significant Impact	☒	Less than Significant Impact
☐	Less Than Significant With Mitigation Incorporated	☐	No Impact

Discussion/Explanation:

Less Than Significant Impact: The main compatibility concerns for the protection of airport airspace are related to airspace obstructions (building height, antennas, etc.) and hazards to flight (wildlife attractants, distracting lighting or glare, etc.). The proposed project is located within the Brown Field Municipal AIA. The project is a remediation project and would not result in development of any type. Therefore the project would not result in a change in air traffic patterns because the allowable land uses within airport safety zones are created for the purpose of ensuring ongoing airport safety, including maintenance of air traffic patterns. Furthermore, the project would not exceed the Federal Aviation Regulation (FAR) Part 77 criteria related to airspace obstructions. Refer also to Section VIII., Hazards and Hazardous Materials, Question e. Therefore, the proposed project will not have a significant impact on air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project will not significantly alter roadway geometry on Heritage Road. Sight distance at intersections is measured in terms of Corner Sight Distance (7½ second rule) and Sight Triangle. Exhibit 9 of the *Traffic Impact Analysis* illustrates the Sight Triangle standards for intersections. The sight triangles were overlaid on a topographic and aerial photograph of the project site entrance. Heritage Road is on a downward grade approaching the driveway from the south. On either side of Heritage Road to the south of the project driveway is a small hill. Aside from natural foliage and landscaping, no physical obstructions where identified south of the project access road within the sight triangles. North of the site access road, Heritage Road continues to slope down toward the north. On the east side of the road is the shooting range, which is slightly lower than the road. No physical obstructions were identified in the sight triangle to the north of the access driveway. Landscaping and other natural foliage may need to be assessed at the time the remediation efforts begin to ensure that no natural objects obstruct the line of sight from the access road. In addition, the proposed project will not place incompatible uses (e.g., farm equipment) on existing roadways. Therefore, the proposed project will not significantly increase hazards due to design features or incompatible uses.

e) Result in inadequate emergency access?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: Currently, the segments of Heritage Road and Main Street within the study area operate at levels of service A or B, which represents free flowing traffic conditions with minimal delay. The study intersections also operate at acceptable levels of service (C or better) during the A.M. and P.M. peak hours without and with the addition of truck trips from the project. Therefore, sufficient capacity is available on the roadways for emergency responders to access the area. To minimize the potential effects to emergency response, it is recommended that all truck related activity pertaining to the remediation cease a minimum of two hours prior to events at Cricket Wireless Amphitheatre and coordination with adjacent property owners regarding event times is recommended to avoid traffic conflicts and minimize the potential for localized congestion (refer to Mitigation Measure TR-1). In addition, the Traffic Control Plan (refer to Mitigation Measure TR-2) will ensure that access and traffic flow will be maintained and that emergency access will not be restricted and impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measures TR-1 and TR-2.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project is a remediation project and will generate 42 to 198 PCE's a day, depending on the loading and transport schedule. Project implementation will not result in the construction of any road improvements or new road design features that would interfere with the provision of public transit, bicycle or pedestrian facilities. In addition, the project does not generate sufficient travel demand to increase demand for transit, pedestrian or bicycle facilities. Therefore, the project will not conflict with policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not involve any uses that will discharge any wastewater to sanitary sewer or on-site wastewater systems (septic). Therefore, the project will not exceed any wastewater treatment requirements.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The project does not include new or expanded water or wastewater treatment facilities. In addition, the project does not require the construction or expansion of water or wastewater treatment facilities. Based on the service availability forms received, the project will not require construction of new or expanded water facilities. Service availability forms have been provided which indicate adequate water is available to the project from the Otay Water District. In addition, as described above, the project is a remediation project and will not require wastewater treatment. Therefore, the project will not require any construction of new or expanded facilities, which could cause significant environmental effects.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact With Mitigation Incorporated: The project is a remediation project that would require BMPs in order to reduce impacts related to storm water runoff. Therefore, a SWPPP has been prepared for the project in order to control storm water runoff such that erosion, sedimentation, pollution, etc. are minimized. Refer to Section IX(c), Hydrology and Water Quality, and Mitigation Measure BIO-10.

Mitigation Measure: Refer to Mitigation Measure BIO-10.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project requires water service from the Otay Water District. A Service Availability Letter from the Otay Water District has been provided, indicating adequate water resources and entitlements are available to serve the requested water resources. Therefore, the project will have sufficient water supplies available to serve the project.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation:

No Impact: The proposed project is a remediation project and will not produce any wastewater; therefore, the project will not interfere with any wastewater treatment provider's service capacity.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Implementation of the project will generate solid waste. All solid waste facilities, including landfills require solid waste facility permits to operate. In San Diego County, the County DEH, Local Enforcement Agency issues solid waste facility permits with concurrence from the California Integrated Waste Management Board (CIWMB) under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440 et seq.). There are five, permitted active landfills in San Diego County with remaining capacity. Therefore, there is sufficient existing permitted solid waste capacity to accommodate the project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Implementation of the project will generate solid waste. All solid waste facilities, including landfills require solid waste facility permits to operate. In San Diego County, the County DEH, Local Enforcement Agency issues solid waste facility permits with concurrence from the CIWMB under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440 et seq.). The project will deposit all solid waste at a permitted solid waste facility and therefore, will comply with Federal, State, and local statutes and regulations related to solid waste.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: Per the instructions for evaluating environmental impacts in this Initial Study, the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in sections IV and V of this form. In addition to project specific impacts, this evaluation considered the projects potential for significant cumulative effects. Resources that have been evaluated as significant would be potentially impacted by the project, particularly biological and cultural resources. However, mitigation has been included that clearly reduces these effects to a level below significance (refer to Mitigation Measures BIO-1 through BIO-10 and CR-1 through CR-9)**.** As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-10 and CR-1 through CR-9.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☒ No Impact

Discussion/Explanation: Per communication with Steve Powers, City of Chula Vista, there are no related projects within the City of Chula Vista that would have a cumulative impact. Further, the County of San Diego Property Profile Search did not reveal any projects within a one-mile radius of the project site within the County.

No Impact: Per the instructions for evaluating environmental impacts in this Initial Study, the potential for adverse cumulative effects were considered in the response to each question in sections I through XVIII of this form. In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there is no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

☐ Potentially Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ Less than Significant Impact
☐ No Impact

Discussion/Explanation:

Less Than Significant With Mitigation Incorporated: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to certain questions in sections I. Aesthetics, III. Air Quality, VI. Geology and Soils, VIII. Hazards and Hazardous Materials, IX Hydrology and Water Quality XII. Noise, XIII. Population and Housing, and XVI. Transportation and Traffic. As a result of this evaluation, there were determined to be potentially significant effects to human beings related to the following: air quality, geology and soils, noise, and transportation and traffic. However, mitigation has been included that clearly reduces these effects to a level below significance (refer to Mitigation Measures AQ-1, AQ-2, BIO-7c, and TR-1 through TR-5). As a result of this evaluation, there is no substantial evidence that, after mitigation, there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

Mitigation Measures: Refer to Mitigation Measures AQ-1, AQ-2, BIO-7c, and TR-1 through TR-5.

XIX. REFERENCES USED IN THE COMPLETION OF THE INITIAL STUDY CHECKLIST

All references to Federal, State and local regulation are available on the Internet. For Federal regulations refer to http://www4.law.cornell.edu/uscode/. For State regulations refer to www.leginfo.ca.gov. For County regulation refer to www.amlegal.com. All other references are available upon request.

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